

ACCOUNTING PRACTICE

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INTRODUCTION

THE idea prevalent some years ago, that an accountant was simply a "bookkeeper out of a job," has long since been dispelled. To-day the business has attained a high standard as a profession.

To check a set of books, and simply verify the clerical accuracy of the work, is not auditing in the true sense of the word. There are methods requiring little work which make such checking unnecessary.

The accountant, while he understands bookkeeping, is more than a bookkeeper. He must be capable of dealing with the difficult problems of business and he must know how to interpret the intricacies of affairs so that a layman can comprehend and be guided by his observations. The accountant must know theory in order properly to understand his business; but a man able and proficient in theory is not necessarily a competent accountant. He must acquire practice by actual experience, in order to develop ability as an accountant; for it is the art of applying theory in practice which makes the theory valuable.

In the natural order of things, we learn from the experience of others, and the advantage each generation has over the preceding one lies in the knowledge gained by the experience of the preceding generation.

The business of accounting has developed so rapidly that the reference books, essential to the business as a profession, have not kept pace; consequently the books available are not on a par with the reference books of other professions.

For many years, it has been the duty of the author to supervise the work of others, and during his experience he made notes of the best methods under his observation. These notes have been valuable for reference, and the many requests from prominent accountants for access to the notes have influenced the author to publish them.

The language is simple, telling how to do certain lines of work so as to lead directly to the desired results and avoid repetition.

The book is divided into four parts, namely:

- I. Methods of Working,
- II. Cost Accounting,
- III. Operating Forms, and
- IV. Report Forms.

I. The first part of the book treats of methods of working which have been developed by years of experience and will be valuable to any accountant who desires to attain a high standard of excellence. It also contains miscellaneous notes which are the opinions of competent auditors.

II. The second part of the book treats cost accounting in a new and original way. The systems are all simple and practical, having been successfully worked out. The *original* working instructions are submitted, which made repetition necessary in some instances, for it did not seem advisable to eliminate any part of the original working instructions.

III. The third part of the book contains the operating forms which were referred to in so many different places that it was considered best to group them. The author suggests that the student make rough copies of the forms necessary to each system and study each system as a unit instead of so many parts.

IV. The fourth part of the book is devoted to report forms and forms of a statistical character. The first nine forms are never submitted as the main exhibits of a report, but are generally made by the auditor as a basis upon which he can prepare his report and other statistics. From Form 10 on are the forms to be submitted as exhibits when making the official report.

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PART I

METHODS OF WORKING

I. HOW TO PLAN AND PERFORM A GENERAL AUDIT IN DETAIL

In order to plan an audit, it is necessary to consider (a) the character of the business, (b) the books employed and the plan of keeping the books, and (c) the object of the audit.

The Character of the Business

This is the most important feature to be considered when planning an audit, for the nature of the business will give an insight into the matters to be provided for and consequently a definite idea of the books required by the business.

The idea is this: When you enter an office to plan an audit, think of the character of the business and establish in your mind what classes of entries are essential to keep records of the business. After you have established in your mind what matters should have been provided for, an examination of the books as hereinafter described will reveal the provisions which were made for keeping the records of the business and assembling the results, also the methods employed in bringing out the important features of the business.

A little careful thought on the character of the business at the beginning of the examination will give you a clearer insight into the system of keeping the records, and enable you to grasp the situation more thoroughly and work intelligently and with confidence.

Trading Business

If it is a trading business, they buy and sell, in which case you will expect to find books for the purchases and books for the sales; and in addition to the books which are peculiar to that particular business you will find the books which are common to every business: namely, the cash books, the journal and the ledger.

Manufacturing Business

If it is a manufacturing business, they purchase raw material and supplies, manufacture and sell or ship to selling agents. In that case you will expect to find books for the purchases, and sales or shipments to selling agents, pay roll books, and in addition to the books peculiar to the business you will find the books which are common to every business: namely, the cash book, the journal and the ledger.

The Books Employed and Plan of Keeping Them

Make a complete list of the books that were in use during the period to be examined. While making this list, make a memorandum of the part each book performs, its object and endeavor to establish in your mind its relation to the system as a whole, also the names and duties of the clerks engaged in keeping the books, and performing the various functions associated with them. At the same time inquire regarding the methods of entering and filing orders, invoices, receipts, etc. If you acquaint yourself with the methods of the office at the outset, it will enable you to plan the work so as to interfere as little as possible with the regular office routine and facilitate matters when you desire to investigate any questionable entry. If you know where to look and what to look for, it will not consume a fraction of the time that will be required if you are not familiar with the office routine, and it will be more agreeable to all concerned, than if you are obliged to make indiscriminate inquiries regarding every matter you deem it expedient to investigate.

In examining the books when planning an audit, give especial attention to the books which are peculiar to the business, and endeavor to learn the reason and object of every diversion from ordinary methods.

The methods employed, in making records which are similar, vary owing to circumstances and differences of opinions and ideas, but the object in view is the same and the results similar. To illustrate: There may be a hundred different ways of preparing records of the sales, but the main object of all is to determine the amount of the sales, and the resultant must necessarily be the total of the sales. Consequently the diversity of methods should not confuse

you; your object is to verify, to your satisfaction, the total amount of the sales, the analysis being a secondary consideration.

The Object of the Audit

The object bears an important influence when you are planning an audit, for it is the first consideration of the audit and the excuse for its performance; nevertheless it is impossible to offer more than suggestions regarding the procedure, especially when the information desired is of special import or of an extraordinary character. This much might be said: When you are called upon to perform an audit with a view to obtaining certain information, it is necessary to keep the information desired foremost in your mind, to give it first consideration *without sacrificing the safeguards necessary to your own protection*, and to give especial attention to all books and items bearing on the matter in question.

If you make an examination of a set of books simply to obtain certain peculiar information and neglect to satisfy yourself that the cash was all right at that time, the layman, should an embezzlement be discovered later, will almost invariably condemn you for your neglect and will not consider the circumstances of your case; consequently it is inadvisable to render such service unless your instructions are in writing and specify that you are not to examine the financial end of the business.

Auditing a Trading Business

Illustrating the method of procedure you would go through in familiarizing yourself with a business, as a preliminary step to planning a general or detailed audit, let us consider a trading establishment. The character of the business consists of buying and selling. By specializing the features in this way we predetermine what the business operations are, and create in the mind an outline of the business; this should enable you to grasp the situation quickly and help you to formulate your ideas of what is necessary to prepare proper records of the transactions of the business.

Since the business consists of buying and selling, you first ascertain how the buying and selling have been recorded.

Buying

Who did the ordering? What books were kept to record the purchases and the various transactions appertaining thereto? How were the returned purchases treated? What provisions were made to take advantage of discount on bills? Who was authorized to approve these and what safeguards were adopted to prevent errors of omission or commission in settlement?

Selling

What books were kept to record the sales and the sales credits? How were they analyzed and summarized? What methods were employed to avoid errors in charging and shipping, and who was authorized to approve orders for shipment?

Books Common to Every Business

There are certain books common to every business and, while it is not intended to minimize their importance to the business, the consideration of their character is not important when endeavoring to comprehend the scope of the business. These books are the cash book, the journal and the ledger, and they are used and treated the same in almost every business.

Audit of the Cash

Plan to audit the cash as outlined hereafter and ascertain who had charge of the cash, the powers of the persons responsible for the cash and the restrictions upon them. Ascertain the methods employed in handling the receipts, the channels through which the receipts came and the check upon them. Ascertain what methods were employed in making the disbursements, the persons authorized to approve the payments and, if a petty cash account was in operation, obtain a clear conception of the way it was handled and its relation to the general cash.

Preliminary Steps

The plan of the books should unfold itself to you as you proceed with your preliminary examination; if it does not, it will be better

to devote ample time to quiet thought, until you feel that you fully comprehend the situation.

After obtaining a well-defined idea of the books and methods of conducting the business, a glance at the trial balance will reveal the accounts which were kept to control the business and will show the way they have been subdivided. When considering the trial balance group the accounts in the following way:

Capital Accounts, Representing Assets and Liabilities.

Nominal Accounts, Controlling Expenses and Income.

Personal Accounts, Accounts with Individuals and Companies.

The assets and liabilities are further classified as fixed and current, the fixed assets being the plant and equipment accounts and the fixed liabilities being the capitalization accounts, which include capital stock issues of every form and the bonded indebtedness. The current assets are the active accounts of assets, such as cash, bills receivable, merchandise, accounts receivable, unexpired insurance, etc.; the current liabilities are the active accounts of liabilities, such as bills payable, accounts payable, loans, etc.

By devoting sufficient consideration to the accounts which have been provided, you can generally determine the features of the business that it was desirable to have predominate.

Examine carefully the profit and loss account and see how the closing of the accounts was performed; if the journal was used as a medium for making the closing entries, study carefully the closing entries which were made in the journal.

Grouping the Books

In your preliminary examination you prepared the following list of books:

Private Ledger.

General Ledger.

Purchase Ledger.

Sales Ledger.

Bad Debt Ledger.

Petty Ledger.
General Journal.
Purchase Journal.
Private Journal.
Purchase Credit Journal.
General Cash Book.
Petty Cash Book.
Check Book Amsterdam Trust Co.
Check Book First National Bank.
Check Book Lincoln National Bank.
Pay Roll Book.
C.O.D. Book.
Sales Book (Press copy books).
Sales Credit Book (Press copy book).
Approbation Book.
General Ledger Trial Balance Book.
Purchase Ledger Trial Balance Book.
Private Ledger Trial Balance Book.
Sales Ledger Trial Balance Book.
Receiving Book.
Shipping Book.
Stock Book.
Inventory Book.
Order Book.

To follow the plan of specializing according to the peculiar features of the business, group the books by discriminating between the books for the buying, the books for the selling, and the books for the centralization and control of the business; by arranging them according to the order of operation, you will readily observe any omission.

BUYING: Order Book.
 Receiving Book.
 Purchase Journal.
 Purchase Credit Journal.
 Purchase Ledger.
 Purchase Ledger Trial Balance Book.

SELLING :	Stock Book.
	Shipping Book.
	Sales Book.
	Approbation Book.
	Sales Credit Book.
	Sales Ledger.
	Sales Ledger Trial Balance Book.
	Petty Ledger.
	Bad Debt Ledger.
	C.O.D. Book.
CASH :	Cash Book.
	Petty Cash Book.
	Check Books.
	Pay Roll Book.
CENTRALIZATION :	General Journal.
	General Ledger.
	General Ledger Trial Balance Book.
	Private Journal.
	Private Ledger.
	Private Ledger Trial Balance Book.
	Inventory Book.

By arranging the books similarly to the above you will be enabled to determine whether each division of the books is complete.

Making the Working Plan of the Audit

After you have carefully revised the schedule of books and arranged them according to the features of the business, and satisfied yourself that you have not overlooked any of the books, take a sheet of paper and make your final *working plan of procedure*: Write the name of each book, and under the name of the book write what work you propose doing in connection with it. Do this with every book in the order in which it appears on the list, viz:

ORDER BOOK :

Used to verify purchases.

RECEIVING BOOK :

Used to verify purchases.

PURCHASE JOURNAL:

- Vouch the entries with the bills.
- Check the distribution of the items.
- Check the footings.
- Prove the totals of the distribution.
- Check the postings to the purchase ledger.
- Check the postings of results to general ledger.

PURCHASE CREDIT JOURNAL:

- Check the distribution of the items.
- Check the footings.
- Prove the totals of the distribution.
- Check the postings to the purchase ledger.
- Check the postings of results to general ledger.

PURCHASE LEDGER:

- Check footings of the accounts.
- See that all items are checked.
- Schedule unchecked entries.
- Make careful memorandum of all irregularities.

PURCHASE LEDGER TRIAL BALANCE:

- Verify balances for beginning of period.
- Verify balances for end of period.
- Make copy of trial balance for end of period.
- Compare with controlling account in general ledger.

STOCK BOOK:

- Examine general appearance of entries.
- Compare inventory at beginning of period.
- Compare inventory at end of period.
- Make a memorandum of all irregularities.
- Verify entries for purchases.
- Verify entries for shipments.

SHIPPING BOOK:

- Check shipments with sales.
- Examine general appearance of entries.

SALES BOOK:

- Verify extension of items.
- Check footings of sales.
- Check postings to sales ledger.
- Check postings of results to general ledger.

APPROBATION BOOK (Shipments on Approval):

- Examine general appearance of entries.
- Check transfers of charges to sales book.
- Verify return of entries canceled.

SALES CREDIT BOOK:

- Verify extension of items.
- Check footings of sales credits.
- Check postings to sales ledger.
- Check postings of results to general ledger.

SALES LEDGER:

- Check footings of account.
- See that all items are checked.
- Schedule unchecked entries.
- Make careful memorandum of all irregularities.

SALES LEDGER TRIAL BALANCE BOOK:

- Verify trial balance for the beginning of period.
- Verify trial balance for the end of period.
- Make copy of trial balance for the end of period.
- Compare with controlling account in general ledger.

BAD DEBT LEDGER:

- See that transfers to this ledger are authorized.
- Make schedule of all bad debts.
- Verify cash entries.

C.O.D. BOOK:

- Check C.O.D. entries from sales book.
- Verify returns with receiving book.
- Check entries in cash book.
- Make list of outstanding items.
- Compare with controlling account in general ledger.

CASH BOOK:

- Balance cash on hand.
- Make a summary of cash book account.
- Make a summary of check book account.
- Make a summary of pass book account.
- Vouch cash payments with canceled checks.
- Reconcile cash payments and check book account.
- Reconcile check book and pass book accounts.
- Check deposits with receipts.
- Reconcile receipts and deposits.
- Vouch cash with regular vouchers.
- List missing vouchers.
- Check postings to purchase ledger.
- Check postings to general ledger.
- Check postings to sales ledger.
- Check postings to petty ledger.
- Check postings to private ledger.

PETTY CASH BOOK:

- Vouch payments.
- Check transfer of items to cash book.
- List missing vouchers.

PAY ROLL BOOK:

- Check footings of pay rolls.
- Verify items with time books.
- Check entries in cash book.

GENERAL JOURNAL:

- Examine carefully all entries.
- Verify or vouch all entries.
- Copy entries which are questionable.
- Copy entries relating to bonds, stocks and capital.
- Copy entries for closing books.
- Check postings to general ledger.
- Check postings to purchase ledger.
- Check postings to sales ledger.
- Check postings to petty ledger.
- Check postings to bad debt ledger.

GENERAL LEDGER:

- Check footings of accounts.
- See that all items are checked.
- Schedule unchecked entries.
- Make careful memorandum of irregular entries.

GENERAL LEDGER TRIAL BALANCE BOOK:

- Verify balances for beginning of period.
- Verify balances for end of period.
- Make copy of trial balance for end of period.

PRIVATE JOURNAL:

- Examine carefully all entries.
- Vouch all entries with general books.
- Copy all entries which are questionable.
- Copy entries relating to bonds, stocks or capital.
- Copy entries for closing books.
- Check postings to private ledger.

PRIVATE LEDGER:

- Check footings of accounts.
- See that all items are checked.
- Examine carefully alterations and corrections.
- Verify trial balance for beginning of period.
- Verify trial balance for end of period.
- Make copies of trial balances.

If you wish to estimate the time required to perform the audit, when making a list of the books estimate the time required to examine each book and check the work, allowing sufficient time for preparing the report. The total is the time required.

Order of Work

In most cases it is advisable to commence by auditing the cash. This will enable you to become better acquainted with the business and familiarize yourself with the system.

It is not necessary or advisable to perform the audit in the order of the plan, nor is it advisable to attempt to lay out the plan in the order you intend to do the work. After completing the audit of the cash, you can use your judgment in the performance of the balance of the audit. As each particular item of the work is completed, check off the item on your plan of audit; and where more than one person is engaged on the audit, the name of the auditor and the date the service was rendered should be inserted opposite the item of work on the plan of the audit.

If any part of the work is only partly completed, insert the word "part" on the plan of the audit to indicate that it was not completed, and make suitable notes in your working papers to enlighten your successor regarding it, so that he will be enabled to commence where you left off.

General Suggestions

Where the audit is extensive and the working papers are numerous, number each working paper and make an index of the working papers. Use these numbers for referring from one paper to another. Group the papers in a regular order similar to the following, so that you can readily refer to it:

- (1) Plan of audit and index to working papers.
- (2) Trial balances.
- (3) Cash and bank account papers.
- (4) Notes and text of report.
- (5) Analysis of accounts.
- (6) Statements for the report.
- (7) Memorandums for future audits.

If you have assistants, devote your attention to the important matters and assign the assistants to the extensive checking, vouching, and footing. When directing work you can often accomplish more by devoting a generous portion of your time to careful thought, considering well every feature and circumstance. The time employed making careful observations is not wasted.

The maker of the books, the style of ruling and all the various

details may be important points especially if the books are loose leaf and there is reason to believe the matter is not the original, but has been copied or replaced.

In performing an audit, it is the duty of the auditor to ascertain what the various results of the business are and satisfy himself as to their correctness, the net purchases, the net sales, etc., and the changes in the assets and liabilities.

The assets and liabilities not shown, whether contingent or otherwise, should be carefully recorded on the working papers, especially bills receivable which have been discounted, and indorsements made to accommodate others.

An auditor should use every means to determine whether all the assets which ought to be there are shown, and, if there is reason to believe that any assets have been dissipated or hypothecated, it is his duty to qualify his report to that effect and decline to certify the balance sheet unless it is accompanied by the text of the report.

If the business is a partnership, the auditor should examine the partnership agreement and make sure all the conditions have been complied with, and see that all entries relating to the partners have been properly entered on the books.

If the auditor is not thoroughly familiar with the composition of the accounts after performing an audit in detail, it is advisable for him to analyze the accounts as directed in the instructions relating to the performance of a financial audit.

If the business is a corporation, the auditor should examine the articles of incorporation, the stock books and the minutes, to see that the purport of the minutes has been executed and properly entered on the books.

The auditor should see that all issues of stock bonds or other capitalization have been properly made and the values absorbed by the business; if they have not, he should report it.

Adjustments to Ledger

Do not make adjustments to the ledger until the work is completed. Make a complete schedule of all adjustments, showing full detail of the items, the books and folios, and all matters relating to

them. When the work is completed, make the adjustments as hereinafter described.

Corrections

If an entry was made incorrectly, correct it, or, better still, have it corrected at once and make a note of all corrections on a sheet used for that purpose only.

II. HOW TO AUDIT THE CASH

Outline of the Method

- (1) Make a summary of the cash book account.
- (2) Make a summary of the check book account.
- (3) Make a summary of the pass book account.
- (4) Vouch the cash payments with the canceled vouchers which were returned by the bank.
- (5) Reconcile the total payments on the summary of the cash book account with the total checks on the summary of the check book account.
- (6) Reconcile the total checks on the summary of the check book account with the total canceled vouchers on the summary of the pass book account.
- (7) Check the deposits with the receipts entered in the cash book.
- (8) Reconcile the total receipts on the summary of the cash book account with the total deposits on the summary of the check book account.
- (9) Reconcile the total deposits on the summary of the check book account with the total deposits on the summary of the pass book account.
- (10) Vouch the cash with the regular vouchers and list all missing vouchers.

This method of auditing the cash is simple and complete, and enables the auditor to perform an audit of the cash in an incredibly short time when the work is extensive; it also makes interesting what would otherwise be excessively monotonous. It (1) proves the correctness of the footings of the cash book, (2) proves the correctness of the footings of the check book, (3) proves the correctness of the bank account, (4) reveals all errors and adjustments affecting the cash, (5) reveals all contra entries, (6) reveals all errors in the check book account, (7) reveals all errors in the bank pass book account,

(8) exposes all items which were entered in the cash book and not deposited, (9) exposes all items which passed through the bank account without being entered on the cash book, (10) makes it impossible to overlook errors of omission or commission, and (11) develops positive control of the cash and bank accounts.

Balance the Cash First

Always balance the cash immediately; this is imperative. While doing this, make memoranda of the following:

(1) The footing of the debit side of the cash book and the last item included in the footing.

(2) The footing of the credit side of the cash book and the last payment included in the footing.

(3) The footing of the deposits on the check book and the amount of the last deposit included in the footing.

(4) The footing of the checks on the check book and the number and amount of the last check included in the footing.

(5) A complete detailed statement of the balance compiled by you. If there is cash other than cash in banks, make a minute record of it and be very particular regarding items other than currency. It is necessary that full details of all tickets be made a part of your working papers.

Checks Outstanding

Most bookkeepers make a record of the checks outstanding when the pass book is balanced. If this has been the custom in your case, make a copy of the list of outstanding checks for the beginning and end of the period to be examined.

Preserve the papers relating to the cash balance and extend the examination up to the point where the balance was made, to satisfy yourself that the balance was correct and in order.

Certificate

Request the firm to secure from the bank a letter stating the amount on deposit on the day when the account was balanced and file this with your working papers. This is customary, and the banks generally provide a form to meet such requests.

1. Summary of Cash Book Account

Make a summary of the cash book account, showing the balance on hand at the beginning of the period, the receipts according to the cash book, the payments according to the cash book and the balance at the end of the period, similar to the following:

Summary of the Cash Book Account

Balance Jan. 1, 1891..\$10,601.15	PAYMENTS.
RECEIPTS.	January, 1891 .....\$10,415.70
Jan., 1891 ..\$9,610.51	February, 1891 11,217.65
Feby., 1891..10,408.22	March, 1891 13,371.52
March, 1891.15,310.75	
	Total Payments .....\$35,004.87
Total Receipts .....\$35,329.48	Bal. Mch. 31, 1891... 10,925.76
<u>\$45,930.63</u>	<u>\$45,930.63</u>

2. Summary of the Check Book Account

Make a summary of the check book account for the same period, showing the balance on hand according to the check book at the beginning of the period, the deposits, the checks drawn and the balance on hand at the end of the period, similar to the following:

Summary of the Check Book Account

Balance Jan. 1, 1891. \$8,745.63	CHECKS.
DEPOSITS.	January, 1891 .....\$10,315.91
Jan., 1891 ..\$10,752.63	February, 1891 12,314.21
Feby., 1891. 11,822.31	March, 1891 12,982.15
March, 1891. 14,987.16	
	Total Checks .....\$35,612.27
Total Deposits .....\$37,562.10	Balance 10,695.46
<u>\$46,307.73</u>	<u>\$46,307.73</u>

3. Summary of the Pass Book Account

Make a summary of the pass book account covering the period. Show the balance on hand according to the pass book at the beginning of the period, the deposits, the canceled vouchers returned by the bank and the balance at the end of the period, as follows:

Summary of the Pass Book Account

Balance Jan. 1, 1891..\$11,431.22	CANCELED VOUCHERS.
DEPOSITS.	January, 1891 .....\$14,382.91
Jan., 1891..\$10,752.63	February, 1891 11,374.63
Feb., 1891. 11,822.31	March, 1891 12,222.57
March, 1891. 14,007.52	
	<hr/>
	Total Vouchers\$37,980.11
Total Deposits\$36,582.46	Bal. Mch. 31, 1891... 10,033.57
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\$48,013.68	\$48,013.68

In making the summaries of the cash book, check book and pass book accounts, endeavor to have the summaries conform to the closings which were made on each book, for it is very easy to eliminate the matter belonging to the prior or subsequent periods. That is, if the period being examined is the month of June and the pass book was not balanced since May 20th, commence the pass book account at May 20th, have pass book balanced, and bring summary to date.

If there are several cash books, make a summary for each and every book and then make a summary of all the cash books, so that you know the total cash received and paid.

If there are several bank accounts, make a summary of each and every check book and make a summary of all the check books; also make a summary of each and every bank pass book and make a summary of all the pass books.

4. Vouch Payments with Canceled Vouchers

Vouch the cash payments with the checks returned by the bank. If you use a blue pencil, make a blue double check mark on the

summary of the Pass Book Account to indicate that you have vouched the cash with the checks and used a blue pencil to establish the identity of the items which were checked. In making check marks on the books, be careful and make a small, neat and distinctive mark; take pride in having them appear regular instead of slovenly and hideous. (Little things express character.)

When vouching the items of the cash book with the checks, examine the indorsements and compare the payee with the cash book entry; if you notice any irregularity in the indorsement or payee, make a memorandum of it, and make a small cross which will attract your attention when you are vouching the cash payments with the vouchers. In making notes relating to checks, enter on your working papers the full details of the checks.

Make a list of all checks and bank charges which do not appear to be entered on the cash book.

When all the checks which were returned by the bank have been checked off on the cash book, make a small circle (o) opposite each payment, which is for a check outstanding at the end of the period. If you have no list of them, this is the time to prepare a list of checks outstanding.

Make a schedule of the items of payments entered on the cash book which were not checked.

5. Reconciliation of Payments and Checks

Reconcile the total payments according to the summary of the cash book account and the total checks according to the summary of the check book account, as follows:

	CASH BOOK ACCOUNT.	CHECK BOOK ACCOUNT.
Cash book payments, as per cash book.....	\$35,004.87	
Cash book items not checked.....		\$200.00
Checks, as per check book.....		35,612.27
Checks entered subsequent period.....	230.30	
Exchange, etc., not on cash book.....	577.10	
	<hr/>	<hr/>
	\$35,812.27	\$35,812.27

6. Reconciliation of Checks and Canceled Vouchers

Reconcile the total checks according to the summary of the check book account and the total canceled vouchers returned by the bank according to the pass book account, as follows:

	CHECK BOOK ACCOUNT.	PASS BOOK ACCOUNT.
Checks, as per check book.....	\$35,612.27	
Outstanding January 1st.....	2,685.59	
Canceled vouchers, as per bank.....		\$37,980.11
Outstanding March 31st.....		317.75
	<hr/>	<hr/>
	\$38,297.86	\$38,297.86

Reconciliation of Cash Payments and Canceled Vouchers

	CASH BOOK ACCOUNT.	PASS BOOK ACCOUNT.
Payments	\$35,004.87	\$37,980.11
Checks not on cash book.....	230.30	
Exchange, etc., not on cash book.....	577.10	
Checks of prior account.....	2,685.59	
Outstanding end of period.....		317.75
Cash items not vouched with checks.....		200.00
	<hr/>	<hr/>
	\$38,497.86	\$38,497.86

If the results do not agree, it should not take you long to ascertain what the trouble is; for, if your work has been done correctly, it must be one of three things, viz.: (1) a check missing which passed through the bank, (2) bank account incorrect or (3) footings wrong on check or cash books.

If the results agree, you know wherein the cash book, check book and bank book accounts differ and can devote your attention to the extraordinary items which developed as the work progressed.

Examine cautiously every item on the list of "canceled bank vouchers not entered on the cash book," and give especial attention to the list of items on the cash book which were not paid through the bank.

7. Check Deposits with Receipts

If the records are in such condition that it is possible to do so, check the receipts entered in the cash book with the deposits entered in the pass book. If inconvenient to check the receipts direct to the pass book, check the receipts with the deposits entered on the stub of the check book and check the totals to the pass book.

Make a list of all items in the pass book which do not appear on the cash book and make a list of all items on the cash book which were not deposited.

8. Reconciliation of the Receipts and Deposits

Reconcile the total receipts according to the summary of the cash book and the total deposits according to the summary of the check book account, as follows:

	CASH BOOK ACCOUNT.	CHECK BOOK ACCOUNT.
Receipts, as per cash book...	\$35,329.48	
Receipts prior account.....	1,855.52	
Deposits, as per check book.....		\$37,562.10
Cash book items not deposited.....		200.00
Deposits not on cash book.....	577.10	
	<hr/>	<hr/>
	\$37,762.10	\$37,762.10

9. Reconciliation of Check Book and Pass Book Deposits

Reconcile the total deposits according to the summary of the check book and the summary of the pass book, as follows:

	CHECK BOOK ACCOUNT.	PASS BOOK ACCOUNT.
Deposits	\$37,562.10	\$36,582.46
Deposits made subsequent period.....		979.64
	<hr/>	<hr/>
	\$37,562.10	\$37,562.10

Reconciliation of Cash Receipts and Pass Book Deposits

	CASH BOOK ACCOUNT.	PASS BOOK ACCOUNT.
Receipts, as per cash book.....	\$35,329.48	
Deposits, as per pass book.....		\$36,582.46
Receipts prior account.....	1,855.52	
Deposited subsequent period.....		979.64
Deposits not on cash book.....	577.10	
Cash book items not deposited.....		200.00
	<hr/>	<hr/>
	\$37,762.10	\$37,762.10

If the cash book, check book and bank pass book accounts agree, it is hardly necessary to check the footings of the cash book and check books; nevertheless, it is always advisable to prove all the footings.

Where all receipts were deposited, regard with suspicion every item entered in the cash book as received and not deposited in the bank, and regard with suspicion every deposit in the bank account which was not entered on the cash book.

Report every case where money was drawn from the bank account and not entered on the cash book, no matter if it was deposited again later on.

Report every note negotiated which was not entered on the cash book.

See that all receipts were deposited for the amount entered on the cash book and be very careful regarding discounts. If discount was charged as an offset to the amount on the cash book, be sure the check deposited in the bank account was for the short amount entered as received on the cash book.

When verifying receipts for interest or other payments on mortgages, notes, etc., examine the notes and check off the payments entered on the backs of the notes, to make sure the entries were properly made on the cash book.

10. Vouch Cash with Regular Vouchers

Inquire who was authorized to approve vouchers for payments, before commencing to vouch the cash with the regular vouchers which are the receipts for the payments.

Vouch the cash payments with the regular vouchers, making a small initial letter mark to indicate its character. *Devote special attention* to the items which you marked with a cross or which were not checked at all, when you were vouching the payments with the canceled checks.

If there was a petty cash book, vouch the cash book payments with the petty cash book, making the check mark with a red pencil.

Check the items on the cash book for receipts which were absorbed by the petty cash account.

When vouching payments for notes, bonds and mortgages which were retired, be sure to see the original documents and if they were not canceled, confer with the proper officials and insist upon having them canceled; if they decline to cancel them, report the facts of the case.

When vouching payments for interest on notes, bonds, etc., be sure to ascertain whether the interest payments were properly made, and if there were coupons, see that they were canceled.

When vouching payments for investments in stocks and bonds, require the broker's memorandum of the sale and see if the checks were made direct to the broker; examine the securities to see that they were registered in the name of the company.

When vouching payments for purchases of realty, require the deed and at least see that this has the recording clerk's memorandum entered thereon; note also date recorded.

When vouching payments for certificates of deposit, notice particularly the date, and regard suspiciously a change of date; see also that the certificate is registered in the name of the company.

When vouching payments which require the approval of the Board of Directors, examine the minutes and see if the payments were properly authorized.

When vouching payments for dividends, examine the minutes and see that they were properly authorized by the Board of Directors and that the dividends were equitable distributions to all the stockholders.

When vouching payments for salary of the officers, see that same were properly authorized by the Board of Directors.

When vouching payments for office salaries or pay rolls, satisfy yourself that these are correct and report all matters which appear to be irregular or extraordinary.

In all your work, use colored pencils and peculiar marks for specific purposes so that you can identify a check mark by referring to your working papers. Then, if you desire to know why you checked an item which is questioned, the check mark will indicate it.

In making periodical audits, do not neglect to refer to the working papers of the prior audit and verify the former figures before commencing.

Be deliberate in what you do, for accuracy is of vital importance and haste only means a waste of time and annoyance.

It is the auditor's duty to ascertain whether all the cash, which should have been received, has been received and entered in proper form, also that a full and complete record has been made of each and every transaction. All the business should be spread on the books. If you make a careful examination of the cash first and satisfy yourself that it is correct or ascertain wherein it is not as it should be, you will find it much easier to proceed with the audit of the books; you will have more confidence in your work than if you defer the examination of the cash until you have wearied yourself with the rest of the audit. There are many unforeseen contingencies which might occur that would make it difficult for you to give the cash proper attention, if you defer the examination of same until the last.

If you uncover what appears to be fraud or embezzlement, do not mention it until you are absolutely certain of your position. In the majority of cases it is advisable to wait until you have completed the audit of the cash before exposing the culprit. If, however, you are certain, and there is a possibility of the person escaping, it may be advisable to mention your suspicions, stating the facts without coloring them. Qualify what you say with the statement that, as the work is incomplete, you are not yet in position to give definite information, but thought it advisable to call attention to the facts. If you are under authority, consult your superiors before making a verbal report regarding any matter.

III. HOW TO ANALYZE AN ACCOUNT

To analyze an account is to classify the elementary items of the account by grouping them under several headings, in order to obtain a more definite knowledge of its composition.

This is one of the most important functions of an auditor, and an acquired habit of exercising great care in analyzing will be of inestimable value to him.

The ordinary account conveys little intelligence other than what the heading implies and very often that is misleading; therefore, in order to obtain definite knowledge of the composition of an account, it is necessary to examine it in detail. This can best be accomplished by commencing at the beginning and examining every item individually, in the order of the entry, during which procedure it is a very simple matter to group the elementary items of the account in any manner desired, with the aid of a sheet of analysis paper.

There are three methods of analyzing an account, and, while the results obtained will be the same, there are circumstances which make it more desirable to adopt one than another. The three methods are:

The simple analysis.

The comprehensive analysis.

The analysis for a summary account.

Any one of these three methods can be employed for any kind of work.

THE SIMPLE ANALYSIS is the method in which the items are distributed in the columns on the analysis sheet, without providing any means of referring to where the items appear in the account or where the items originated. It is the method commonly used by auditors because it requires less time than either of the other methods.

THE COMPREHENSIVE ANALYSIS provides a record of where the items appear on the books of original entry and is very satisfactory

when giving testimony ; for the most essential thing then is to be able to refer your inquisitor to the place where the items appeared on the books of original entry.

THE ANALYSIS FOR A SUMMARY ACCOUNT shows a true copy of the account, given where the items appeared on the books of original entry and the analysis of each and every item of the account. It is the most satisfactory method for all purposes, but as it requires considerable time it is not usually employed.

The copy of the ledger account shown is a case where each of the various items of the account specifies what the charge was made for, but in bookkeeping this is the exception rather than the rule, and if it is customary in the case in hand, it would not be advisable to accept it, for it is the duty of the auditor to refer to the original entry and verify each item. Never take anything for granted, and never accept any person's word when it is possible for you to ascertain the true nature of an item. In all cases where statements of any character affecting your work are made, always make a memorandum on your working papers of the statement, the date, and the name of the party making the statement, and as far as possible verify it. If the statement has any bearing on the matter to be reported, embody in your report the statement and the details relating to it.

The Simple Analysis of an Account

A copy of an account on page 110 of ledger No. 4 of the books of Jones and Kilby is submitted to illustrate the method of proceeding. As the heading of the account implies, cartage, freight and expressage were charged to this account, and you find it necessary to know the total amount of each in order to make a satisfactory report.

Preparing the Analysis Sheet

Take a piece of analysis paper, and make a memorandum of the following at the top of the analysis sheet (see page 31).

- (1) The number and name of ledger and the page of the account.
- (2) The name of the company.
- (3) A comprehensive description of the analysis, and
- (4) The period covered by the analysis.

Analyzing the Debit Side of an Account

The first item of the account, Cartage \$14.20, should be entered in the column headed "Cartage" on the analysis sheet.

The next two items, Freight \$115.70 and \$94.20, should be entered in the column headed "Freight" on the analysis sheet.

The next item, Cartage \$11.23, should be entered in the column headed "Cartage" on the analysis sheet.

The next item, Expressage \$1.25, should be entered in the column headed "Expressage" on the analysis sheet.

The next item, Cartage \$115.80, should be entered in the column headed "Cartage" on the analysis sheet.

The next two items, Expressage \$2.25 and \$1.40, should be entered in the column headed "Expressage" on the analysis sheet.

The next item, Cartage \$41.75, should be entered in the column headed "Cartage" on the analysis sheet.

The next four items, Expressage \$0.40, \$1.50, \$3.05, \$1.15, should be entered in the column headed "Expressage" on the analysis sheet.

The next two items, Cartage \$10.73 and \$4.75 should be entered in the column headed "Cartage" on the analysis sheet.

The next item, Freight \$104.71, should be entered in the column headed "Freight" on the analysis sheet.

The next and last item on the debit side of the account, Expressage \$4.35 should be entered in the column headed "Expressage" on the analysis sheet.

All the debit items of the account having been examined and distributed on the analysis sheet, the actual analysis of the debit side of the account is completed.

Foot the columns on the analysis sheet. Add the totals of the columns, and prove the result with the ledger account. Be absolutely certain of the proof, and never leave it until you know it is correct.

Make an analysis of the credit side of the account on the same plan as the debit.

Deduct the total of the analysis of the credit side of the account from the total of the analysis of the debit side of the account. If the result is correct, make a summary, viz:

(Copy of Ledger Account)

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Express, Cartage and Freight

1890				1890			
Jan.	10	Cartage	71 14 20	Jan.	15	Freight Rebate	75 4 75
	15	Freight	92 11 70		23	Allowance Cartage	99 3 10
	17	"	73 94 20	Mch.	31	Balance P. & L.	520 57
	19	Cartage	75 11 23				
	21	Expressage	77 1 25				
	22	Cartage	109 11 80				
	31	Expressage	79 2 25				
Feb.	1	"	83 1 40				
	2	Cartage	111 41 75				
	3	Expressage	85 40				
	4	"	86 1 50				
	5	"	87 3 05				
	9	"	90 1 15				
	20	Cartage	115 10 73				
Mch.	10	"	119 4 75				
	15	Freight	95 104 71				
	31	Expressage	97 4 35				
			528 42				528 42

(Copy of Analysis)

Ledger 4, page 110

Jones & Kilby

Analysis of Express, Cartage and Freight Account

For the three months ending March 31, 1890

Expressage	Cartage	Freight	
1.25	14.20	115.70	
2.25	11.23	94.20	
1.40	115.80	104.71	
.40	41.75		
1.50	10.73		
3.05	4.75		
1.15			
4.35			
15.35	198 46	314.61	
	3.10	4.75	
15.35	195.36	309.86	Freight
		195.36	Cartage
		15.35	Expressage
		520.57	Balance

Summary of the Analysis

	DEBITS.	CREDITS.	NET.
Expressage	\$15.35	\$	\$15.35
Cartage	198.46	3.10	195.36
Freight	<u>314.61</u>	<u>4.75</u>	<u>309.86</u>
Totals	\$528.42	\$7.85	\$520.57

Always make a summary of the analysis in a prominent place, and do not crowd it on the analysis sheet. If the sheet is full, it is better to take another paper and make the summary clear and plain, in order to avoid uncertainty regarding the results, and endeavor to arrange the summary so that it may be comprehended at a glance.

When the analysis of an account is completed, arrange the various papers relating to same in the manner that appeals to you as being most convenient for reference, always placing the summary on the top. Join the papers together with a pin or clip and file for future reference.

Improper Entries

When analyzing an account, examine each and every item individually, refer to the original entry and, if not satisfactorily explained, trace the matter out until you are satisfied you have obtained all the information to be had. Never leave it until you have an intelligent understanding of the item in question.

If the item is such that, in your judgment, it is not a proper charge to the account you are analyzing, make a memorandum of the item on your analysis sheet, and on another paper make an exact copy of the original entry, and all the entries relating to it. Be sure to note the book and folio of each item, and, while the matter is fresh in your mind, write a synopsis of the facts of the case.

Adjustments

Cash Book 2/751. R. Graham. Bay Gelding.....	\$100.00
Charged against Expense Account, should have been charged against "Horses and Trucks."	
Cash Book 3/57. Walker & Co. Light Wagon.....	300.00
Charged against Expense Account, should have been charged against "Horses and Trucks "	
Cash Book 3/191. Brooklyn Furniture Company Cabinet.....	322.50
Charged against Expense Account, should have been charged against "Furniture and Fixtures."	

Total as per Summary of Analysis Sheets \$722.50

Headings for the Columns of the Analysis Sheet

If you know the composition of an account, as shown on the illustration, (in which case you know the account was composed of expressage, cartage and freight), you have a definite analysis in view and simply head the columns of the analysis sheet to meet your requirements; but if the account reveals nothing to guide you in choosing the headings for your analysis sheet, proceed with the work, and the headings will develop as the work progresses. By that I mean: If the first item is expressage, head a column "Expressage"; if the next is freight, head a column "Freight," and so continue; then if you are producing too many headings, group the unimportant headings.

Be judicious in providing headings, for an extended analysis often deprives the result of its best value. No set rule can be given, therefore you must consider the circumstances and be guided by your own judgment.

Analyzing Extensive Accounts

When an account is extensive, it is better to analyze it in sections and make a summary of the sections.

Summary of Several Analysis Sheets

Sheet No.	Total	Expenses	Supplies	Rent	Traveling Expenses	Adjustments
1	2232.35	1171.20	471.15	150.00	340.00	100.00
2	2445.20	1280.60	504.10	210.00	150.50	300.00
3	2466.40	1371.50	217.24	150.00	405.16	322.50
	7143.95	3823.30	1192.49	510.00	895.66	722.50

Salary and Wages

In making an analysis of the salary and wages account, analyze the salaries first, putting pay-roll items in one column, and, after proving the analysis, proceed to analyze the pay-roll column according to departments, which, if correct, will agree with the column provided for the pay-roll on the original analysis of the salary and wages account.

If it is possible to discriminate between productive and non-productive labor, show the amount of each in the various departments.

The Comprehensive Analysis of an Account for Legal Accounting

In analyzing accounts preparatory to making a report which is likely to be examined in court, it is advisable to compile your analysis so that you know definitely the source of your information; this necessitates preparing the working papers so that reference can be made to the original entry of each item. If there is anything confusing when being cross-examined, it is the inability of the witness to state quickly the source of the information and the reasons for the deductions, consequently it is necessary to prepare the analysis sheets on a more elaborate plan than is generally adopted by auditors.

The expense account conveys a fair idea of the average account. The first item of the account is \$11.75; the particulars entered by the bookkeeper being "Sundries" you find it necessary to refer to the folio given, of the cash book; upon examination, you find the desired page to have been in Cash book No. 3, and the details entered there "Expense Account, Brooklyn Gas Company, \$11.75." This item is one of many for which you have seen the vouchers and, being an expenditure for light, it should be entered in the column provided for "Heat, Light and Power" in the manner shown on the analysis sheet.

If, for any reason, the date is an important consideration, enter the date of each item on the analysis sheet in addition to the above.

In making a comprehensive analysis of an account, give a synopsis of each item, and the book and folio of the original entry. Then, if you are called upon to state the composition of any part of the report, by referring to your working papers you can give a definite idea of what the item is for and refer your inquisitor to the original entry of each item.

In the lower left hand corner of the analysis is a memorandum of the footings of the account, showing the amount deducted for prior account, which proves the analysis. Never neglect to make this a part of your analysis sheet, and never check it off as correct until you are absolutely certain that it is correct.

Use the double check mark as a means of identifying the items which you used to check each other.

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Expense Account

1890										
June	1	Brought forward		907	60					
	5	Sundries	119	11	75					
	7	"	102	500	00					
	9	"	121	115	80					
	10	"	104	1500	00					
	11	"	162	210	50					
	15	"	171	101	50					
	17	"	104	91	17					
	21	"	117	50						
	25	"	119	72	18					
	30	"	115	81	52					
	30	"	119	110	22					
				3752	24					

Ledger 3, folio 183

Jones & Walker Co.

Comprehensive Analysis of the Expense Account

For the Month of June, 1890

Heat, Light & Power		Rent		Expenses	
$\frac{CB\ 3}{119}$ Bklyn. Gas Co.	11.75	$\frac{CB\ 3}{102}$ Store Rent June	500.00	$\frac{J\ 5}{171}$ Moving	101.50
$\frac{CB\ 3}{121}$ N. Y. Steam Co.	115.80	$\frac{CB\ 3}{104}$ Warehouse Rent June, July, Aug.	1500.00	$\frac{CB\ 3}{104}$ Stationery	91.17
$\frac{CB\ 3}{162}$ Edison Elec. Co.	210.50	$\frac{CB\ 5}{117}$ Yard Rent June	50.00	$\frac{CB\ 5}{119}$ Sundries	72.18
$\frac{CB\ 5}{115}$ Cons. Gas Co.	81.52				
$\frac{CB\ 5}{119}$ Edison Elec. Co.	110.22				
	529.79		2050.00	Expenses Rent Heat L. & P.	264.85 2050.00 529.79
Footings	3752.24 907.60 2844.64				2844.64

Be deliberate and positive in whatever you do. Use the double check mark only to indicate that the result checked is indisputably correct, and never use it excepting to check such results; then, if an error develops in the work, you will save yourself considerable work and annoyance.

Adjustment Entries

If you discover items which do not belong in the account, make up the summary of the analysis, showing first the balance as it would have been if the item in question had not been posted to the account, and then add to the correct balance each item to be eliminated, with full details, so that balance of the analysis sheet will agree with the balance of the ledger account as it stands on the book.

Summary of Analysis of Traveling Expense Account

(Showing item of salary which requires adjusting entry)

	Debits	Credits	Net
Traveling Salesmen.....	11,140.00	916.50	10,223.50
Officers and Directors.....	570.15	5.25	564.90
Allowance to Buyers.....	51.37		51.37
	11,761.52	921.75	10,839.77
Jl. 5/175 R. B. Cliff Salary for June, 1890			100.00
Balance of Traveling Expense Account			10,939.77

How to Analyze a Summary Account

A very satisfactory way of analyzing a summary account is to take a piece of analysis paper and enter the items of the account in the first column, then head the next succeeding columns to meet the requirements. Examine each item individually and enter the analysis of it opposite the item by distributing the analysis in the succeeding columns on the same line the item appears.

IV. A FINANCIAL AUDIT

A financial audit is an audit made in the interest of a fiscal agent or of a prospective purchaser of the business.

It seldom comprises a complete audit in detail, because the client, as a rule, prefers to waive the examination of the sales and purchase in detail, being satisfied to accept the sales and purchase records, provided a superficial examination satisfies the auditor that they are legitimate.

When the auditor enters upon such an audit, he should test the sales about the end of the period and, by checking important items with the shipping records, endeavor to ascertain whether the sales are legitimate. The footings and postings of the sales totals should be verified.

The purchases should be examined to see if the invoices were entered promptly, and a falling off at the end of the period or neglect to enter invoices should be regarded suspiciously. The footings and postings of the totals of the purchases should be verified.

Plan of Financial Audit

1. Audit the cash in detail.
2. Make trial balances for the beginning and end of the period examined.
3. Make a condensed trial balance for the end of the period.
4. Analyze the accounts of the condensed trial balance for the end of the period.
5. Make a complete copy of each and every real account.
6. Make a balance sheet for the end of the period and verify the items.
7. Make copies of the profit and loss account, surplus, reserves, etc.
8. Make schedules of notes and accounts.

9. Foot sales and purchases.
10. Make copies of all journal entries relating to capitalization, stocks, bonds, etc.
11. Summarize the books of original entry.
12. Make a superficial examination of all books not examined in detail.

If possible, the postings of the cash to the sales and purchase ledgers should be checked, and the items in the credit journals should be verified and checked.

1. Make a complete audit of the cash in detail as instructed in the previous chapters. Satisfy yourself that it is correct and in order, before proceeding with the audit.

In some cases an examination of the cash is waived by the client. If that is the case, qualify your report to that effect.

2. Make a copy of the trial balances for the beginning and end of the period, and verify the balances by comparison with the ledger accounts.

3. Make a condensed trial balance for the end of the period.—A condensed trial balance is composed of only the general accounts. The equilibrium is established by adding to the debits the total of the personal account debits as accounts receivable, and adding to the credits the total of the personal account credits as accounts payable. (See Report Form No. 46.)

When preparing a condensed trial balance, it is always advisable to discriminate between sales accounts, purchase accounts, accounts with individuals, accounts with stockholders, and accounts with employees, by carrying the amount of each short.

When preparing a condensed trial balance, it is essential that you copy the names of the accounts exactly as they appear on the books, and, if a name is ambiguous or uncertain, make suitable notes on your working papers to enlighten you regarding the true character of the account.

4. Analyze accounts composing the condensed trial balance to determine the composition of each and every account. A summary should be made of the analysis of each account and the balance should agree with the balance shown on the condensed trial balance.

When analyzing the accounts of profit and loss, and all accounts

associated with it, be very careful that you prepare the analysis sheets so that you have an intelligent understanding of each and every item. The object of this is to enable you to prepare statements setting forth the results of the business, to do which, you must be able to state (by referring to your working papers) what the items are and your reasons for setting up the statement as you do.

COMPARATIVE CONDENSED TRIAL BALANCE

Another method of analyzing the accounts is to make a comparative condensed trial balance of the trial balances for the beginning and end of the period; then to extend the differences, debit and credit, in the next succeeding columns, and analyze the differences. The advantage of operating in this method is, that it shows clearly all changes which have occurred during the period examined.

After making the comparative trial balance, showing the differences in the accounts which are the results of the entries made during the period, analyze each account to determine the composition of the entries made during the period, and compile the summary of the analysis of each and every account, so that the result of the analysis of each account will agree with the difference shown on the comparative trial balance.

INTEREST AND DISCOUNT

When analyzing interest and discount, if possible show the earnings and expenses, discriminating between interest on notes, loans, accounts, bonds, and discount on accounts receivable and payable.

DIVIDENDS

Examine carefully all dividends and ascertain whether they were properly authorized by the board of directors. Dividends should be paid only from earnings from operation and if not earned the fact should be reported. Dividends are paid from surplus and are proper charges reducing surplus account.

5. Make a copy of each and every real account.—Real accounts are plant and equipment, machinery, realty, stocks, bonds, etc. This is simply for reference and record.

6. Make a balance sheet for the end of the period and verify the items.

(a) *When verifying the accounts receivable*, check the trial balance with the ledger accounts and make a schedule of them. In making a schedule of the accounts receivable, the items may be classified as good, questionable and bad; or they may be classified as current accounts and past due accounts.

When preparing a statement classifying the items as mentioned above, use extreme care so as to avoid criticism.

If the accounts are to be certified, a copy of each account should be sent out with a return slip and a request that the account be compared and, if correct, advice to be forwarded on the return slip, in an inclosed stamped envelope bearing the address of the auditor.

(b) *When verifying bills receivable*, insist upon seeing the notes. Examine the notes and make a complete schedule showing the details of the notes: maker, payee, endorsers, date executed, date due, where payable, amount, etc.

If bills receivable, which were discounted, have not matured, a schedule should be made of them and the total set up as a contingent liability, when preparing the balance sheet.

If notes are secured, make a careful record of the security, and require some evidence that the security is actually placed with the notes if they were negotiated.

(c) *When verifying stocks*, insist upon seeing the certificates and make a schedule of them, showing the number of the certificates, the number of shares, the name of the company, the name in which they are registered, whether common or preferred, the total issue, whether full paid and nonassessable, and all important data.

(d) *When verifying bonds*, insist upon seeing the securities, examine them carefully, and make a schedule showing the numbers of the bonds, the name of the company, the character of the bonds, the denomination, the name in which they are registered (if coupon, make a record of the coupons attached), the amount payable on each coupon, the interest rate, the interest dates, the term of the bond, the date of maturity, and all information regarding them.

(e) *When verifying cash*, count the cash on hand and request the firm to obtain a certificate from the bank stating the balance

which is on hand at the time. If the cash is to be verified as at a past date, examine the cash carefully and ascertain just what became of the cash which was purported to be on hand at the time specified.

(f) *When verifying property*, require the deeds of the property, and, if you do not look up the official records to see that the deeds are properly registered, state the fact in your report. Make a schedule of the properties, giving location, measurements, tax assessed valuations, book valuations, purchase valuations, and all information obtainable which may be valuable or desirable.

(g) *When verifying unexpired insurance*, make a schedule of the policies, giving a complete description of them, showing the name of the insurance company, the name of the party to whom the policy is issued, the property insured, the amount of the insurance, the rate, the premium, the term of the policy, the date the policy expires, and the address of the agent with whom the insurance was placed. Show the unexpired term and extend the unexpired portion of the premium out in the column to be added.

(h) *When verifying unearned discount on notes which were discounted*, make a schedule of the bills payable, showing the date discounted, the face of the note, the payee, the name of the party who discounted the note, the amount of the discount, the life of the note, the unexpired period, and extend the unearned portion of the discount out in the column to be added.

(i) *When verifying inventories*, make an examination of the inventories, check the footings and the extensions, make tests by comparing the prices with the sales and purchase to determine whether they are excessive or conservative. It is always advisable to specify in the report that "no responsibility is assumed for quantities and prices," nevertheless no effort should be spared to verify same.

(j) *When verifying bills payable*, examine the cash and ledgers to determine whether the value was actually absorbed by the business and that they are a true liability of the business.

Make a list of the notes and, if secured, verify the collateral and make a careful memorandum of all the details of the collateral.

(k) *When verifying accounts payable*, examine the ledgers and endeavor to ascertain whether all the accounts are entered in the books, by examining and comparing the statements which were re-

ceived. In some cases the creditors are requested to mail statements of their accounts and these are compared. A schedule should be made of them, showing the important detail. In examining the accounts, satisfy yourself that the items are a proper liability of the company for value absorbed by the business. Be very particular regarding accounts with officers, stockholders or interested parties; make true copies of these accounts.

(1) *When verifying loans*, examine the original entry of each, and see that the value was actually absorbed by the business. Make a schedule of the loans, giving the names of the parties, the amount, the conditions of the loans, whether interest-bearing, and all other important information.

(m) *When verifying a surplus account*, examine the books and satisfy yourself the surplus was earned; if it was not make a careful record of how the surplus was created.

(n) *When verifying capital stock*, examine the entries for the original issue and see if the stock was issued for value, as dividends, water, or under what conditions it was issued. Make a complete record of the stock authorized and issued.

(o) *When verifying bonds*, see that the bonds were issued originally for cash; if they were not get full details regarding the issue. Make a complete record of the bonds issued and the bonds authorized, the term of the bonds, the date of maturity, the trustees, the character of the bonds, the interest dates, the denominations, and all information available.

(p) *When verifying certificates of indebtedness*, examine carefully the original issue and make a schedule showing the character of the issue, the conditions, the names of the parties to whom they were issued, the amount, the denomination, and all available information regarding them.

7. Make a copy of the profit and loss accounts, surplus, reserves, etc.—It is also advisable to make an exact copy of the closing entries, when the closings are made by journal entry.

8. Make schedules of the notes and accounts.—This is generally done when verifying the assets. When making the schedules, arrange them in the form they are to be set up in the report. This will obviate the necessity of copying the schedule when preparing the report.

9. Foot the sales and purchases.—This should be done and, when doing it, make an examination of the sales. Make test examinations by verifying the sales with the record of shipments. If stock books are kept, verify the sales by the stock records. By *testing* is meant to pick out items here and there and verify them.

10. Make copies of all journal entries relating to capitalization, and examine the minutes to determine whether the entries are in accord with them. Copies should also be made of the minutes authorizing the entries.

11. Summarize the books of original entry.—It is not absolutely necessary to do this, but the author finds it very desirable. To *summarize* the books is to make a summary of each book, so that you have one entry for the whole period instead of an entry for each month.

12. Make a superficial examination of all the books not examined in detail.—When doing this examine the journal very carefully and scrutinize every entry. Make a copy of every entry which is questionable.

In general, when making an audit to secure information for a prospective purchaser, if for the whole or a part interest in the company, make a list of the parties interested in the business, and be very particular regarding the general conditions of the business. If certain interested parties, or associate companies, are the heaviest customers, give full details regarding their accounts and full information regarding their relations with the business. If interested parties are interested in such a way that the withdrawal of their support would embarrass the business, be sure to get the full details and report them.

V. THE FIRST AUDIT OF A NEW CORPORATION

When making an audit of a new corporation or consolidation, a careful record should be made of the details of the organization and capitalization.

Vendor's Agreements

Examine the vendor's agreements and make a synopsis of them. Verify the payments made to vendors and make a summary showing when and how paid, whether in cash, stock or bonds, and the amount of each. Make a copy of the minutes of the meetings of directors, officers and stockholders, authorizing and approving the agreements.

Promoter's and Preliminary Expenses

Examine the entries for promoter's and preliminary expenses and make a summary of them. Inquire whether they have all been paid and, if not, obtain full details of the obligations.

Capital Stock

Make notes of the capital stock authorized, its character, the number of shares, and the par value.

What stock has been issued, and for what?

Examine carefully all entries in the books for capital issued, and see whether the value was actually paid in.

Bonds

What bonds were authorized and issued, and for what issued?

In preparing notes relating to bonds, make a record of the amount subscribed, the amount issued, the amount paid to date, the trustees, the date of execution and authorization, the denominations, the rate

of interest, the dates interest is payable, whether coupon or otherwise, the date of maturity and the character of the bonds.

Make a careful copy of all minutes bearing on the issue and specify whether the minutes are of directors' meetings, executive board meetings, or stockholders' meetings, giving the date and place of meeting.

If commission was paid or allowed for placing the stock and bonds, obtain full details regarding same, especially to whom paid, and how.

VI. MAKING ADJUSTMENTS TO A LEDGER

Never make adjustments to a ledger during the progress of an audit. Make a schedule of all adjustments, debits and credits, on a sheet used only for that purpose.

Copy the trial balance on a sheet of analysis paper with at least six columns. Head the first two columns for the debits and credits of the trial balance; head the next two columns for the adjustments, debits and credits; and head the next two columns for the final adjusted trial balance, debits and credits.

For every lot of adjustments use a set of columns debit and credit. Post the adjustments to the sheet in the columns for the adjustments and foot the columns of adjustments to prove the postings. When the adjustments are posted to the sheet, compute the net result of each account and extend the adjusted balance in the columns for the adjusted trial balance. If the work has been done correctly the final trial balance will be correct; if not, the difference can be located by proving the work, sheet by sheet, or by accounts.

Another method of making adjustments is to take a large sheet of analysis paper and open an account for each item of the trial balance on the analysis sheet. A twenty-four column analysis sheet with fifty lines will be sufficient for ninety-six accounts.

After preparing the analysis sheet and posting the trial balance to the analysis sheet with red ink, prove the sheet by making footings of the columns and verifying the totals with the total of the trial balance.

Post the adjustments to the accounts on the analysis sheet with black ink; foot the accounts on the analysis sheet and prove the balance.

Make an adjusted trial balance from the analysis sheet.

In making adjustments to a ledger (especially where there are a large number of adjustments), never commence by making indiscriminate changes in the accounts, but do it in a systematic manner.

The above mentioned methods insure accuracy and provide a record of all adjustments made.

VII. PREPARATION OF THE REPORT

As the audit progresses, any matter which you deem it expedient to embody in your report should be written up immediately, while the matter is fresh in your mind. Use a separate piece of paper in doing this, exercising great care in the composition and arrangement of the facts. Confine yourself entirely to a statement of the facts; giving all the details, especially where the matter appears in the books. State the names of the books as they are commonly known and the folios upon which the matter appears. Be very careful in the preparation of such material and especially in quoting books and folios. Never, never make suppositions or take anything for granted.

Do not venture opinions unless requested to do so and then mention the request. The business of an auditor is to state facts, and any evidence of prejudice or bias in the text of a report destroys the value of the report.

If you prepare (on separate pieces of paper) the matters which you intend to embody in your report, as part of the text of the report, you can eliminate what your examination proves to be superfluous; and, when you have completed the audit and finally prepare the report, it will not be necessary to copy the matter (and thus risk errors in facts and figures). The preparation of the report will simply be a matter of arranging the sheets in the order you wish the facts to appear in the text of the report. Have the report copied from the working papers which were prepared when your mind was devoted exclusively to the matter.

If you simply make notes during the progress of the audit, and the notes are brief, it may be difficult and sometimes impossible, when preparing your report, to compose the matter so as to express what you desire in the way you would report it; because your mind is not confined entirely to the consideration of the subject in question. If

you prepare the notes in form suitable for embodying in the text of the report, when you prepare the final text for the report, your energies will not be absorbed by the composition, but can be devoted to reviewing the subjects and thus secure better results.

Then again, if you only make brief notes during the progress of the audit and return to the office to prepare the text of the report, you may find you have neglected to secure some data which is vitally important to your report.

Therefore, prepare each matter in form suitable for embodying in the report and check up very carefully all the figures, folios, quotations, etc. Be absolutely certain that they are correct. Remember, your report is the most important feature and may be subjected to unfriendly examination.

Do not generalize; be specific and definite in your report, confining yourself to facts.

If you have nothing to report, do not compose a lot of elaborate matter simply to show off your composition. If you find nothing in particular that commends itself to you as worthy of consideration, do not attempt to create something.

Never use invective language or names derogatory to the reputations of others; leave it to the proper authorities to convict; your business is to show facts and not pass judgment.

The text of the report should deal first with the instructions and the period; a copy of the instructions can be embodied in the text of the report when desirable. After this, mention the exhibits which are embodied or attached as part of the report, the list of exhibits being given in order suitable for reference, and the various matters relating to the exhibits submitted. Finally make general remarks relating to the audit and the certification.

Report on a Trading Business

The report on an audit of a trading business should embody the following exhibits:

- Balance Sheet for beginning of period,
- Balance Sheet for end of period,
- Surplus Account for the period (optional),
- Profit and Loss Account for the period,

Trading Account for the period,
Schedule of Bills Payable for the end of the period,
Schedule of Bills Receivable for the end of the period,
Schedule of Accounts Payable for the end of the period, and
Schedule of Accounts Receivable for the end of the period.

If the report is a periodical audit, the balance sheet for the beginning of the period should be omitted.

If the surplus account consists of only a few items, they can be shown on the balance sheet for the end of the period.

Report on a Manufacturing Business

The report on an audit of a manufacturing business should embody the following exhibits:

Balance Sheet for the beginning of the period,
Balance Sheet for the end of the period,
Surplus Account for the period (optional),
Profit and Loss Account for the period,
Manufacturing Account for the period,
Schedule of Bills Payable for the end of the period,
Schedule of Bills Receivable for the end of the period,
Schedule of Accounts Payable for the end of the period, and
Schedule of Accounts Receivable for the end of the period.

Report on a Manufacturing and Trading Business

The report on an audit of a manufacturing and trading business should embody the following exhibits:

Balance Sheet for the beginning of the period,
Balance Sheet for the end of the period,
Surplus Account for the period (optional),
Profit and Loss Account for the period,
Trading Account for the period,
Manufacturing Account for the period,
Schedule of Bills Payable for the end of the period,
Schedule of Bills Receivable for the end of the period,
Schedule of Accounts Payable for the end of the period, and
Schedule of Accounts Receivable for the end of the period.

The manufacturing and trading accounts are combined when it is impractical or inconvenient to show them separately.

Report on the Books of a Treasurer

The report of an audit of the books of a Treasurer should embody the following exhibits:

- Balance Sheet for the beginning of the period,
- Balance Sheet for the end of the period,
- Statement of Receipts and Disbursements,
- Statement of Expense and Income, and
- Schedules of Securities and Properties.

Report on an Operating Business

The report of an audit of an operating business should embody the following exhibits:

- Balance Sheet for the beginning of the period,
- Balance Sheet for the end of the period,
- Surplus Account for the period (optional),
- Profit and Loss Account for the period, and
- Operating Account for the period.

In General

Make it a point to condense the main exhibits as much as possible, consistent with good form.

If an item of the balance sheet is composed of one or two items of detail, it is hardly necessary to make a separate exhibit of one or two items. Nevertheless, it is always preferable to show separate exhibits, giving full detail of such items as bonds, stocks, realty, notes, accounts, loans, etc.

When an audit covers several fiscal periods, the balance sheets of intermediate dates can be embodied in the report if desirable, and a comparative balance sheet can be shown.

Never omit the main balance sheet which is being shown in detail and certified, because it is included in a comparative statement. The certified balance sheet must always be set up alone, with appropriate schedules and supplementary statements must lead up to the certified balance sheet.

In preparing a report on several plants operated together, it is advisable to make a report on each individually and then make a consolidated report on the operation of all plants.

If an audit is made of several years or fiscal years, show separate accounts for each year, excepting the surplus account which may be set up to cover the full period.

If a balance sheet is shown for each intermediate period, the surplus account should be closed at the end of each period so that the surplus as at the date of each balance sheet will be evident.

If desired, comparative statements can be set up in a report covering several periods.

Balance Sheet

If an audit is made with a view to determining the condition of the business, for stockholders, or other parties interested as investors, the balance sheet should be set up to show first the fixed assets and the fixed liabilities, and after them the current assets and current liabilities. (See balance sheet Report Form No. 28.)

If the audit is made for the parties operating the business with a view to determining the condition of the business from an operating standpoint, the current assets and current liabilities should be set up first, and the fixed assets and fixed liabilities under them. (See balance sheet Report Form No. 20.)

When setting up a balance sheet showing the current assets first, always arrange the items so that the quick assets will appear first, and set up the assets not so easily converted into cash according to degree of convertibility.

Form of Report

These exhibits we certify to be correct statements of the affairs of *The Willis Hardware Company* according to its books, accounts and vouchers.

Form of Report

These exhibits we certify to be correct in accordance with the books, accounts, and vouchers of *The Willis Hardware Company* at the close of business on *December 31, 1905*.

Form of Report

We report that we have made an audit of the books, accounts, and vouchers of *The Willis Hardware Company* and we have verified the balance sheet attached hereto; same is properly drawn up so as to exhibit a true statement of the condition of the business on *December 31, 1905*, as shown by the books of the company.

VIII. LOCATING DIFFERENCES IN THE LEDGER

1. To Analyze a Ledger

To analyze a ledger means to go through a ledger and analyze the accounts according to the books of original entry.

First check the balance for the beginning of the period to be analyzed, and mark the ledger totals which make the balances so that you can identify the totals at a glance.

If an intermediate period is to be analyzed, check the balances for the end of the period and mark the ledger totals which make the balance, so that they can be identified at a glance. This is done to avoid error and confusion, which would result from uncertainty regarding the postings which were made to the ledger during the period examined.

Before commencing to analyze the ledger, ascertain how many books were posted to the ledger, and make a summary of the total postings made from each book; e.g.:

General Journal.....	\$401,605.70
Purchase Journal.....	561,315.90
Sales Books.....	906,713.22
Cash Receipts.....	874,392.87
Cash Payments.....	903,998.15
	<hr/>
Total Debits and Credits.....	\$3,648,025.84

Take a piece of analysis paper with at least six columns and head the columns, as shown on Form 31, which provides a column for the total entries made to that side of the account and a column for the postings of each book of original entry.

Commencing at the beginning of the ledger, take each account and analyze the debits according to the books of original entry.

Referring to the copy of the account of F. W. Brown & Co., Form 32, you see the account commenced with a balance of \$10,701.50. This is the balance marked as having been checked according to the trial balance for the beginning of the period, so is used only to prove the analysis.

An analysis of the postings made to the debit side of the account reveals the following:

Postings from the sales books.....	\$6649.91
Postings from the cash book.....	19.20
Postings from the journal.....	125.00
<hr/>	
Total postings during period.....	\$6794.11
Balance of account at beginning.....	10,701.50
<hr/>	
Total footing of debits.....	\$17,495.61

The total of the postings made to the debit side of the account during the period which is being analyzed was \$6794.11.

Refer to Form No. 31; the total \$6794.11 is entered in the totals column No. 1 opposite the ledger folio 5 and the analysis of the total is entered as shown: \$125.00, having been posted from the journal, should be entered in the column headed General Journal No. 2; \$6649.91, having been posted from the sales book, should be entered in the column headed Sales Book No. 4; and \$19.20, having been posted from the cash book for cash payments, should be entered in the column headed Payments No. 6.

Analyze the debits of each account in the order the accounts appear in the ledger, and enter on the analysis sheet (Form 31) the result of the analysis.

After all the accounts have been analyzed, the columns of the analysis sheet (Form 31) should be footed. If the work has been done correctly:

The total of the totals column No. 1 will equal the total debits and credits as shown on the summary of the postings made from books of original entry.

The total of the general journal column No. 2 should equal the total of the postings made from the journal or the total of the journal footings.

The total of the purchase journal column No. 3 should equal the total of the postings made from the purchase journal.

The total of the sales book column No. 4 should equal the total of the sales book.

The total of the receipts column No. 5 should equal the total cash receipts.

The total of the payments column No. 6 should equal the total cash payments.

If the totals agree with the summary of the postings made from books of original entry, the work is correct and in order.

After the debit side of the ledger has been analyzed and the totals verified, make a similar analysis of the credit side of the ledger.

Any difference existing on the ledger must be limited to the postings of a specific book; and when it is determined which set of postings are wrong, check up the postings, unless the error appears to be peculiar, such as a transposition of figures.

Transposition of Figures

If the difference is a multiple of nine, it is generally a transposition of figures. This is easily located because the multiple limits the error to certain items.

A shortage of 45 must be a transposition of 50, 61, 72, 83, or 94. Naturally, you would glance over the book of original entry and check the postings of items having such units.

A difference of nine is caused by transposing 10, 21, 32, 43, 54, 65, 76, 87, or 98.

A difference of eighteen is caused by transposing 20, 31, 42, 53, 64, 75, 86, or 97.

A difference of twenty-seven is caused by transposing 30, 41, 52, 63, 74, 85, or 96.

A difference of thirty-six is caused by transposing 40, 51, 62, 73, 84, or 95.

A difference of forty-five is caused by transposing 50, 61, 72, 83, or 94.

A difference of fifty-four is caused by transposing 60, 71, 82, or 93.

A difference of sixty-three is caused by transposing 70, 81, or 92.

A difference of seventy-two is caused by transposing 80 or 91.

A difference of eighty-one is caused by transposing 90.

2. How to Section a Ledger

To section a ledger is to divide the ledger into sections of one hundred pages and keep a control of the sections on separate sheets.

To do this, first analyze the trial balance for the beginning of the period, to determine the amount of debits and credits of the trial balance in the various sections. All the postings of the books of original entry are then analyzed according to the sections of the ledger. The results on the analysis sheets are posted to control sheets and the net results are determined. After this is done the trial balance for the end of the period is analyzed and the results on the control sheets are compared with the analysis.

Outline of Method

(1) Analyze the trial balance for the beginning of the period, to determine the amount of ledger balance in each section.

(2) Make a control sheet for debits and one for credits (see Forms 30 A and B).

(3) Post the analysis of the trial balance for the beginning of the period to the control sheet.

(4) Analyze the debits and credits of the postings from the books of original entry, and make a summary of the debits and credits of each book on summary sheets.

(5) Post the results of the summary sheets for books of original entry to the control sheets.

(6) Carry the totals of the debit sheet to the credit sheet, entering the debit results under the credit totals; and carry the totals of the credit sheet to the debit sheet, entering the credit results under the debit totals. Where the upper amount is greater than the lower, carry the difference down. The total of the differences carried down on the debit sheet should equal the total of the difference carried down on the credit sheet.

Details of Method

(1) The most practical method of analyzing the trial balance is simply to foot the debits and credits of each section and make a summary of the results. If correct, the total debits will equal the total debits of the trial balance and the total credits will equal the total credits of the trial balance.

(2) Study the control sheets, Forms 30 A and B. Accustom yourself to the numbers 0, 1, 2, 3, 4, 5, 6, etc., and so divide the sections that the section numbers will be evident when you see the folio of the ledger. All folios under 100 will be classed number 0, and folios commencing with the hundred will belong to the section indicated by the hundred expressed in the folio number.

If the ledger has 500 pages, divide it into 5 sections; if it has 1500 pages divide it into 15 sections, and always include the last page with the previous section, when this page is the beginning of a new hundred.

(3) Post the analysis of the trial balance for the beginning of the period to the control sheet, Forms 30 A and B. Do not change the analysis after you prove the analysis sheet; enter the exact figures on the debit control sheet, so that the total footed across the sheet will equal the total of the footing of the debits on the trial balance. Always prove the figures after making postings to the control sheet.

(4) Analyze the postings of the books of original entry; for illustration take the journal. Commence at the beginning of the journal entries for the period, and take off the ledger folios for as many pages as practical. To take off the ledger folios, an ordinary plain sheet can be used. Along the top of the sheet run the numbers, representing the sections of the ledger 0, 1, 2, 3, 4, 5, etc. Take off the folios for the debits (only) and enter the folios on the sheet under the number representing the section to which they belong. After taking off all debit folios, take another sheet of paper and make a proof sheet by entering the folios on the sheet in their numerical order, leaving a space between the folios of the sections.

When preparing the proof sheets, make a memorandum on the proof sheet of the footings of the book of original entry up to date and deduct the prior footing. The difference will be the part of the

book you intend to prove, and the total footing of the summary sheet for that book will always agree with the proof sheet.

After preparing this proof sheet, turn to the first ledger folio appearing on the sheet and take from the ledger the total of the postings to that page which were made from that part of the journal. Turn to each successive ledger folio appearing on the sheet, and when complete the total of the sheet will equal the journal postings.

Next prepare a sheet for the credits and prove the credit postings made from the journal.

Analyze the sheets, and make a summary of all the journal debit sheets on a form like No. 30 and a summary of all the credits sheets.

Prove the posting of every book of original entry in this way.

When taking the items from the ledger, make a peculiar mark opposite the items to indicate the proof has been taken. A common method of marking is to make a heavy dot at the junction of the cross line and the unit line farthest from the item.

When this method is operated by an auditor in charge of an office, the auditor keeps the control sheets and each bookkeeper takes off the proof sheets after posting. The proof sheets are delivered to the auditor, who analyzes the sheets by simply footing the sections with red ink. The red ink footings are proved by comparing the total with the totals on the proof sheet. The auditor foots the control sheets and tells the bookkeepers where the difference lies (about), without looking at the ledger.

After all the books have been posted to the ledger and the proof sheets taken off, the summary sheets for each book should equal the total postings from the book. That is, the total of the summary sheet for the cash receipts should equal the cash receipts as shown by the cash book. The same applies to the cash payments and every book.

(5) The summary sheets for books of original entry completed, post the results to the control sheets, as shown on Forms 30 A and B.

After the proof figures on the control sheets have been obtained, the trial balance for end of the period can be footed according to sections and any difference confined to sections.

If care is exercised in the various operations, it should not take long to locate the trouble.

Transfers made without journal entry must be considered, and,

where the system is operated, no transfers should be made without using the journal.

This method has been operated by some of the largest companies in New York for over twenty years, and the taking of the trial balance is only to verify the proof sheets (control sheets).

3. How to Block a Ledger

To block a ledger is to take from the ledger the postings of each book of original entry separately, and verify the postings by comparison with the summary of the postings which is compiled from the books of original entry.

To illustrate: Commence at the first page of the ledger and go through the ledger, page by page, taking off the journal debits for the period in question. After going through the entire ledger, foot the sheet containing the journal debits and compare the result with the total postings made from the journal.

Next go through the ledger and take off the ledger all the journal credits which are footed and verified. This proves that the postings are correct and provides data necessary to prove the ledger as a whole.

Make a summary of the monthly totals of each book of original entry for the period to be examined. To do this it is necessary to foot the journal. After making a summary of each book, make a summary of all the books, compiling it as follows:

General Journal	\$194,257.41
Purchase Journal	947,608.22
Purchase Credit Journal	9,608.75
Sales Book	1,540,602.89
Sales Credit Journal	31,715.63
Cash Receipts	1,910,622.70
Cash Payments	1,897,322.50

The total amount of debit or credit entries..\$6,531,738.10

Always commence with the journal; check out the journal debits and credits, making your check marks on the ledger with blue pencil.

It is always advisable to check the journal, because the number

of entries is generally small and checking identifies the journal items positively, obviating the confusion which would result from uncertainty regarding them. Consequently, if the entries are distinct, it is unnecessary to check the journal.

After all the items from the journal have been checked off on the ledger, go through the ledger, page by page, commencing at the first page, and take off the total journal debits on each page, entering on a sheet of paper the ledger folio and the total amount of the journal debits posted on the page.

This will be a very easy matter, as the journal items will be conspicuous and easily distinguished by the blue check marks which you have made. When the journal debits have been taken off the entire ledger, the sheet should be footed and, if the total amount of the sheet agrees with the summary of the footings of the journal, it is correct. If corrections are necessary, do not add or subtract from the total, but correct the item opposite the folio.

Commencing at the first page of the ledger, go through the ledger again, page after page, and take off the total journal credits on each page, entering on another sheet the ledger folio and the total amount of the journal credits posted on each page, in the same manner that the debits were taken off. Foot the sheet containing the credits and see that it agrees with the total of the debits.

If the cash postings to the ledger have been made in a manner which makes it a simple matter to discriminate between the cash and other items, it should not be necessary to check out the cash; *but if not*, check out the cash postings, making your check marks on the ledger with a red lead pencil. The red pencil will identify the items, so that they can be distinguished from the other postings.

Commencing at the first page of the ledger, go through the ledger once more, page after page, and take off the total debits for cash payments on each page, entering on a sheet, each ledger folio and the total amount of the items posted on the folio. Foot the sheet containing the cash payments taken from the ledger and, if it is correct, it will agree with the cash payments on the summary.

Commencing at the first page of the ledger, go through the ledger again and take off the credits for cash receipts; foot the sheet and compare the total with the total cash receipts.

Commencing at the first page of the ledger, go through the ledger again and take off the debits posted from the purchase credit journal; foot the sheet and verify the total.

Next, take off the ledger the credits from the purchase journal.

Next, take off the ledger the credits posted from the sales credit journal.

Next, take off the ledger the debits posted from the sales book.

In all cases, carefully check the postings to the ledger, of the totals or analysis of the cash receipts and payments, purchases, purchase credits, sales, and sales credits, and, after the work has been completed, if the equilibrium of the ledger has not been established, the difficulty can be located by bringing the figures together in the following manner:

Take the trial balance for the beginning of the period; see that the folios of the ledger are in their consecutive order; foot the debit balances and the credit balances taken from pages 1 to 99 of the ledger; foot the debit balances and credit balances taken from pages 100 to 199; do the same with the balances taken from pages 200 to 299; 300 to 399; 400 to 499; 500 to 599; 600 to 699; and so on through the entire ledger.

For illustration we will presume that the ledger had 500 pages (see Form 30).

	DEBITS.	CREDITS.
Pages 1 to 99.....	\$599,601.22	\$1,000,000.00
“ 100 to 199.....	710,820.91	10,700.60
“ 200 to 299.....	47.31	150,401.70
“ 300 to 399.....	87.20	210,871.16
“ 400 to 500.....	90,601.15	29,184.33
	<hr/>	<hr/>
Totals as per trial balance....	\$1,401,157.79	\$1,401,157.79

The ledger is now divided into sections of one hundred pages to each section (can be any quantity desired) and the work is analyzed in accordance with the sections. Prepare a sheet as illustrated on Form 30 A for debits and also prepare a sheet Form 30 B for credits.

Enter on the Form 30 A, in the column headed “1 to 99,” the total amount of the debit balances taken from pages 1 to 99 of the

ledger; in the column headed "100 to 199," enter the total of the debit balances taken from pages 100 to 199; in the column headed "200 to 299," enter the total of the debit balances taken from pages 200 to 299; in the column headed "300 to 399," enter the total of the debit balances taken from pages 300 to 399; and in the column headed "400 to 500," enter the total of the debit balances taken from pages 400 to 500. When footed across the sheet Form 30 A, the total must be the footing of the trial balance. Enter the credits summarized on Form 30 B, in the same way the debits were entered on Form 30 A.

Foot the various sheets for debits and credits and enter the debits on the summary (Form 30 A) and credits on the summary (Form 30 B). Foot the columns of 30 A and 30 B, and carry the total footings of Form 30 A to Form 30 B and the total footings of Form 30 B to Form 30 A. On both Forms 30 A and 30 B, where the sheet footings are greater than the footings carried from the other sheet, carry down the difference, and the footings of the differences on Forms 30 A and 30 B will agree.

The trial balance for the end of the period can now be analyzed according to sections and, as the footings of each section of the trial balance, are made, they can be compared with the results shown on Forms 30 A and 30 B.

4. When to Block a Ledger

The writer has been very successful in locating balances and as a rule has been able to say about when he would be finished; because he never goes to work blindly, commencing to check before thinking out his plans.

Sit down and think it over carefully; for in most cases the bookkeepers and auditors of the company have exhausted every available means before engaging an auditor. Learn just what has been done, then look over the books.

In a case where the majority of the postings are of one class—such as in a newspaper advertising business, where there are a multiplicity of entries charging the accounts and only a very few entries for cash, allowances and journal sundries—to check the charges like

advertising would require almost the same time taken to make the postings, whereas to block off the charges for advertising would take a very little time. If the block for a year does not agree, the totals taken from the ledger can be analyzed according to months and the difference confined to one month.

If it agreed, the other postings can be proved in a short time and the work completed.

In many cases where it was impossible to check out the books, this plan has been operated with success.

IX. PLANNING A GENERAL SYSTEM OF BOOKS

Examine the books which are in use and make a description of the books, using a separate piece of paper for each book; pin these together and use them for reference and also make notes relating to each book on the memorandum of that book.

Take off a trial balance showing the accounts on the ledger, and make a condensed statement of profit and loss. (Report Forms I to 9.)

Care should be exercised in the preparation of this statement, for the object of the statement is to determine the most satisfactory manner of assembling the accounts.

Make a condensed trial balance of the business (see Report Form No. 46); this will show the features of the business which have been made prominent and the analysis of the various accounts. From this you should be able to design a monthly statement (Form No. 27).

This is what the books are to work up to and should give the desired information.

Always endeavor first to give the client the information he needs, in the simplest statement possible. Let your ideas be elastic and never force them upon a client. If you think you have a method which would prove valuable to the client, explain it to him in detail, giving the reasons for your deductions; if not acceptable, get an idea of what he does want and show enthusiasm in working up his ideas.

Do not try to formulate a plan for the complete system at once; it only confuses the mind and exhausts your vitality.

Take each division of the work separately and give it your individual attention.

Formulate the plan of operating that particular branch of work

and, when you are satisfied you have it right, make up your forms in rough and write a careful description of your plan of operating same.

Make an entry which will incorporate the results in the general books, and study it carefully before considering the next division of the business.

Take up each division of the business and consider it carefully. After you have done so and have an entry for each book, review the matter and see if you have overlooked any class of entries.

Formulate a plan of operating the system as a whole when you are satisfied that you have covered the detail thoroughly.

The best method of satisfying yourself is to rewrite the books for a month or so, not every entry but every style of entry appearing on the books. Preserve these notes carefully, for your mind will require refreshing when installing the books.

To Illustrate: A Trading Business

In a trading business you have buying and selling. By preparing a condensed statement of profit and loss (Report Form No. 3), and a condensed trial balance (Form 46), you get an idea of the features which were considered prominent by the people who developed the business.

Sales

Examine the sales carefully and see if the method of handling the sales is open to improvement. Do not install special column bound books where a number of clerks are posting from the same book. It causes confusion, because only one person can use the book at a time. Always consider whether the book can be conveniently operated.

The sales accounts should always be entered in a special ledger and a control account for them kept in the general or private ledger.

After deciding the most desirable way of handling the sales, if you plan a new form, make a rough outline, and an entry covering the sales for a month.

See sales journal Form No. 25; the following entry will incorporate the results of that form in the general books:

Sales Journal

Debits: Cash Sales Account.....	\$119.70
Sales Ledger Account.....	37,601.72
Purchase Ledger Account.....	401.15
	<hr/>
Credit: To Sales Account.....	\$38,122.57
Debit: Cost of Sales Account.....	24,619.22
Credit: To Merchandise Account.....	\$24,619.22

Consider very carefully before making radical changes.

It simplifies matters to have all work of a similar character compiled in a like manner.

Endeavor to arrange the books so that one entry will incorporate the results on the general books.

Purchases

Study the expense and merchandise purchase accounts on the ledger, and see where the entries originated.

If a large number of entries of a certain class must originate in the cash book, note the fact on the memorandum for the cash book.

Decide whether it is advisable to keep a voucher register (Form 32) or a purchase ledger.

If the purchases are made of certain creditors, the purchase ledger should be kept; but if there are an extraordinary number of parties from whom purchases are made, the voucher register should be given the preference.

Examine the methods which were in vogue for compiling the purchases, merchandise and expense.

(1) Would it be advantageous to make a special column purchase journal?

(2) Would it be desirable to have a purchase journal for expenses and a purchase journal for merchandise?

(3) Is it necessary to keep a purchase ledger? The bulk of the merchandise purchases in many cases is purchased of such a large number of parties, that it would be a waste of time making an account for each purchase.

(4) If not necessary to keep a purchase ledger, how should the purchases be kept?

(5) Would a voucher system be desirable?

(6) Would a vertical file be desirable? (See improved voucher system.)

After deciding upon the book to be used for the purchases, make a rough draft and an entry covering the purchases for a month.

See Purchase Journal, Form No. 24; the following entry will incorporate the results of that form in the general books:

Purchase Journal

Debits: Expense Account.....	\$371.60	
Merchandise	47,691.77	
Freight and Cartage.....	139.87	
Advertising	300.00	
Repairs and Renewals...	194.16	
Selling Expenses.....	1,122.57	
Provisional Account.....	301.70	
Credits: To Sales Ledger.....		\$317.22
To Purchase Ledger....		49,804.45
	<hr/>	<hr/>
	\$50,121.67	\$50,121.67

See also Voucher Register Form No. 32; the following entry will incorporate the results of that form in the general books:

Voucher Register

Debits: Expense Account	\$371.60
Merchandise	49,691.77
Freight and Cartage.....	139.87
Advertising	300.00
Repairs and Renewals.....	194.16
Selling Expenses	1,122.57
Provisional Account	301.70
	<hr/>
Credit: To Accounts Payable.....	\$50,121.67

Cash Receipts

Study the cash receipts and ascertain their sources. Decide whether it would be advisable to inaugurate a system like Form 26, entering nothing but checks on the cash book, or a system like Form 29, entering cash and checks on the cash book.

There are many reasons why the system of entering nothing but checks on the cash book is the better one: It is more susceptible to an audit; it makes the entries and payments final; it is easy to prove and locate differences. There are many other reasons too numerous to mention.

Petty Cash Fund

This plan of operating the petty cash account was devised by the author and is being universally adopted, because it is simple and makes it possible to enter nothing but checks in the cash book.

All receipts are deposited and never confused with the petty cash fund. The amount received is set aside until deposited.

An even sum, say \$500, sufficient to meet the requirements of the business, is set aside as a fund from which all petty items are paid and all matters not conveniently paid by check. Each payment is entered in a book or on an envelope.

At any time it is desirable to balance the cash, the total payments should be counted as so much cash and the balance must equal \$500. This enables the bookkeeper to square up his cash quickly and turn it over to another as often as desired.

When it becomes necessary or desirable to reimburse the fund, the account is closed and a check is drawn for the amount which was paid from the fund, the original record of the payments being submitted as a voucher for the check and the details of the check noted on the record. If an envelope is used, the size should be such, that it can be conveniently filed with the voucher for the check.

The check is entered on the cash book like all other checks, and the record is final and complete.

Nothing but checks are entered on the cash book; consequently the deposits on the cash book should agree with the check book account and the cash payments should equal the checks.

See Cash Receipts Form No. 23; the following entry will incorporate the results of that form in the general books:

Cash Receipts

Debit: Discount	\$110.57	
Bank Account	52,133.31	
Credits: To Sales Ledger Account....		\$21,777.86
" Purchase Ledger Account		41.32
" Bills Payable Account....		30,000.00
" Cash Sales		119.70
" Exchange		305.00
	<hr/>	<hr/>
	\$52,243.88	\$52,243.88

Discount Column

This column is provided when discount is allowed in settlements. If there are also petty allowances for freight, etc., columns can be provided if desired.

Bank Column

This column is for the deposits and should agree with the pass-book account.

Sales Ledger Column

This column is for all items posted to the credit of sales ledger accounts. The total amount credited to the sales ledger should be entered in this column.

Purchase Ledger Column

This column is for credits posted to the purchase ledger for cash received. The total amount credited in the purchase ledger should be entered in this column.

Bills Payable and all such items, occurring only occasionally, are entered in the private ledger column and posted direct to it.

Cash Sales

Where cash sales are made, it is very convenient to provide a column for same on the cash book. If this is done, a column should

also be provided in the sales journal or some method devised for proving the cash sales.

Exchange

An exchange column should be provided on both sides of the cash book and all items of exchange entered in it. This is necessary to make the cash and check books agree in totals.

The following entry will incorporate the results of Form 26 in the general books:

Cash Payments

Debits: Purchase Ledger Account....	\$11,701.50	
Sales Ledger Account.....	10.75	
Bills Payable	10,000.00	
Postage	50.00	
Expense	71.92	
Salary	475.00	
Wages	392.00	
Merchandise	94.73	
Freight and Cartage.....	71.62	
Commission	95.00	
Interest	117.40	
Exchange	305.00	
Credits: To Discount		\$112.31
To Bank		23,272.61
	<hr/>	<hr/>
	\$23,384.92	\$23,384.92

Cash Payables

To obviate the necessity of an extended analysis of the cash book payments, the following method was devised by the author:

Provide a column beside the purchase ledger column on the purchase journal (see Form 28), and also on the cash book (see Form 29). All items it is desirable to pay in cash without opening an account on the purchase or sales ledger, can be entered in the purchase journal, just as any other invoice and the payment made, charging the item in the cash book in the column for Cash Payables.

The Cash Payables on the purchase journal will offset the Cash Payables on the cash book.

Summing Up

After you have drawn up your forms and made your entries, list the entries on a sheet of journal paper and foot them.

Take a sheet of analysis paper and enter the condensed trial balance of the business (rearranged to meet your scheme). Post to the sheet the entries for the forms you have made and extend the results just as designed on Form 27. In posting to the sheet, it is desirable to have some character represent each of the entries so that they can be distinguished at a glance. To illustrate: Have a square at the entry for sales, a diamond at the entry for cash receipts, etc. If it works out satisfactorily, it is safe to go ahead and have the forms made.

Monthly Entries

The best and cleanest method of making the monthly entries is to spread in the journal the entries for each book, so that one page (or two if necessary) will contain the entire results of the business. This has been accomplished in some of the largest concerns. The total of the journal footings will equal the totals in the columns for "Entries for the Month" on Form No. 27.

If an error occurs, it can be located quickly by checking the statement with the journal.

This is accomplished with ease by having a printed form for each book, so that the footings can be entered without writing the names of the accounts.

Daily Balance Sheet

This is virtually the method employed to secure a daily balance sheet; the results of each book are so arranged and reported, the total for each day being posted to a statement (Form 27).

The total debits and credits of the entries for the day (month or week) should equal, and the amount for each account should be added to the results of the previous day and extended into the columns for trial balance up to date.

The daily results are sometimes more conveniently reported for the month up to date, in which case the results reported are added to the results for the closing of the previous month.

Opening a New Ledger

Before opening a new ledger, design the periodical statement for the business. (See Form No. 27.)

Make a copy of the periodical statement and note, opposite the name of each account on the statement, the number of ledger pages it is expedient to assign to each account; add the total of the pages and see if the total exceeds the number of pages of the new ledger. After you have reduced or increased the pages assigned to each account to the required capacity of the ledger, enter the folio of each account opposite the name of the account on the statement. Then commence and open each account on the ledger according to the design on the statement.

General Ledger Index

To provide a convenient index for the general ledger, make a list of the accounts and folios on a sheet of paper a little shorter than the ledger. Leave a margin of about four inches on the left hand side and paste the sheet on the last fly leaf of the ledger, so that when the list is turned outward, the account names and folios will be in evidence. When not in use, turn the list inward so it will not show or be in the way.

Provisional Account

In every business there are certain items of expense such as insurance, taxes, etc., which should be distributed over an extended period. It has been the custom to carry these items in such accounts as Unexpired Insurance, Unexpired Taxes, etc.; but this requires considerable labor each month in order to determine accurately the amount which should be charged against that particular month. To obviate this repetition, necessitated each month, a book was devised by the author which is called the Provisional Account Book.

The book is a sub-analysis with fourteen columns (see Form No. 22), the first column being for the amount, the next twelve col-

umns being for the twelve months of the year, and the last column for the proportion of the expense expiring the following year.

A column is provided on the purchase journal for provisional account (see Forms Nos. 24 and 29). Each and every item charged in this column is entered in the Provisional Account Book, the total amount being entered in the first column, and the amount chargeable to the current year distributed in the columns for the months to which the several amounts apply. The amount which will be unexpired at the end of the fiscal year is entered in the last column.

Several sheets (Form No. 22) can be used to further analyze this expense, by discriminating between taxes, insurance, etc., by using a sheet for each, with only one provisional account in the ledger.

Improved Voucher System

If the purchases are made from so many different parties that it is unadvisable to keep a purchase ledger account of each, the following plan will appeal to many:

Provide a vertical file for invoices and divide it into two divisions: one for unpaid and one for paid bills.

Enter the invoices in the voucher register Form No. 32. All invoices are registered in the order of entry, the number being entered on the invoice.

File the bills alphabetically in the division of the vertical file for unpaid bills, using a bellows file (monthly) for large accounts, and allow them to remain there until paid.

Parties requiring invoices must never take the bills from the files without leaving a receipt. In fact, one person should be responsible for the file and no others should have access to it.

When the bills are paid, they are removed from the division for unpaid bills, stamped paid, voucher register record made and the bills put in the division for paid bills.

Voucher Register Record

When the bills are paid, the payment should be entered opposite the item in the voucher register in the column provided for the current month.

The voucher register has three columns for the memorandum of amount of the payment. These are for the current month of entry and the next succeeding month (assuming all bills are settled in two months). If a bill is paid the same month as entered in the voucher register, the payment is entered in the column for current month.

When balancing the books, a list should be made on the adding machine of the items unpaid and the total compared with the control account.

If one or two items extend beyond the two months, they should be carried forward in red ink on the voucher register.

The total payments for any month should agree with the total of the columns on the voucher register for payments made during that month.

Branch Office Accounts

The branch office books should be as simple as possible; the books of original entry should be made in manifold and the originals sent to the home office.

The branch office books should have columns for the home office and the purchase journal should have a column for the bills to be settled by the home office.

Each branch office should have a fund from which all expenditures should be made by check only, and the branch offices should be reimbursed for the actual expenditures as approved by the home office.

A monthly statement should be provided for each office similar to Form No. 27; in addition a summary of income and expenses, showing the results for the month, same month last year, for the year to date and same period last year; a summary of the sales, showing the inventory at the first of the month, plus the purchases, less the inventory at the end of the month, which makes the cost of the sales. In connection with this report should be a statement of the sales, deducting returns and allowances and showing the net sales.

From the net sales should be deducted the cost of sales, showing the gross profits on each line of merchandise, according to the analysis in common use.

A control plant ledger should be kept at the home office. This ledger should be a duplicate of the ledgers at the plants.

A trial balance from the plant ledger should give a balance sheet in total and detail of all the plants.

The final report should be the balance sheet of the entire business as one, and this should be supported by the balance sheet showing the detail of each item of the first balance sheet. By detail is meant how much is at each plant.

This plan can be operated so that no ledgers are kept at the plants, by having the manifold sheets forwarded to the home office for entry. It is no more work for the home office and takes the results and the work from the branch offices.

X. GENERAL NOTES AND SUGGESTIONS

1. Amplified Trial Balance

In a case where it is necessary to eliminate entries which were superfluous or tended to confuse, it is very satisfactory to make an amplified trial balance, and after determining the entries to be eliminated, to deduct such from the accounts and thus produce the results which would have appeared had the books been written up correctly in the first place.

An amplified trial balance differs from an ordinary trial balance in that, instead of taking off the balance of the account, the total debits and total credits are taken off. The difference between the debits and credits of each account (as taken off for the amplified trial balance) should equal the balance of the account as per the regular trial balance.

2. Account Current

An account current is an account between two offices, and, all entries made by each being considered, the debit balance on the books of one office should equal the credit balance on the books of the other office.

If a request is made by one office to another for an account current, it should be furnished with a detailed statement of its account as it stands on the books, commencing with balance the last time an account current was rendered, showing all the debit items and credit items entered in the account and the balance at the end.

3. Bills Receivable Discounted

The auditor should make a record of all discounts when auditing and if not settled as at the date the assets are verified, the items should be scheduled and set up in the report as a contingent asset and a contingent liability.

4. Accommodation Paper

If the business is in any way liable as indorser or maker of accommodation paper, the notes should be considered a contingent liability when preparing a balance sheet.

5. An Exhibit

An exhibit is something displayed or presented to view. In submitting statements, schedules, etc., as part of a report, it is proper to characterize all as exhibits, inasmuch as all schedules and statements are exhibits, but all exhibits are not statements or schedules.

Anything submitted with a report or supplementary to a report is an exhibit, and should be so characterized, whether it is a photograph, plan, design, letter, or copy of any instrument.

6. A Statement

In accounting, a statement is an arrangement of figures, compiled to show certain results. Although a schedule is virtually a statement, a distinction is evident and, inasmuch as each sets forth distinctly its character, accountants are recommended to discriminate in using the words by adapting the special significance of the words.

7. A Schedule

In accounting, a schedule is a list of items or an inventory. Although many accountants to-day interpret the meaning of schedule to be a statement, the old professional accountants interpreted the meaning of the word to apply only to a list. If the list was converted into a statement at the end, it was characterized as a statement.

8. Unexpired Insurance

Unexpired insurance is an asset and should be considered in preparing a statement of assets and liabilities. To determine the amount of unexpired insurance, make a schedule of the insurance policies showing the number of the policy, name of insurer, insured, property, term, premium, and extend the unexpired portion of the premium. The total of the unexpired portions of the premiums is the amount which should be set up as unexpired insurance.

When preparing a statement of the value of unexpired insurance for a continuing company, distribute the premium equally over the months of the term of the policies; but when the statement of the value of unexpired insurance is for a company which has ordered the cancellation of all policies, estimate the value of the unexpired portion of the premium on the basis of its rebate value.

Unexpired insurance should be carried in a Provisional Account as described and distributed on Form 22.

9. Commission on Sales of Bonds and Stocks

Commission paid on the sales of bonds and stocks issued as capitalization is a charge against surplus; but is not always written off immediately, but classified with promoters' expenses and spread over a period of several years.

This also applies to rebates and allowances of every character made to advance the sale of such securities.

10. Plant Equipment Written Off Arbitrarily

Plant and equipment arbitrarily written off the books should be charged against surplus account.

11. Labor in Trading Account

Labor should be charged in the trading account when the labor is a direct cost chargeable against sales; to illustrate, take the labor of making and laying carpets, which is illustrated on Report Form No. 19.

12. Bad Debts Charged Off

When rendering a report or an audit, always submit a schedule of the bad accounts charged to profit and loss during the period.

If sales are being made to parties whose accounts were previously written off as bad, look up the correspondence relating to the accounts.

13. Collections of Bad Debts

If collections are made of bad accounts which were charged to profit and loss, the collections should be credited to profit and loss account, and set up as an offset to the bad debts charged against profit and loss during the current period.

14. Surrendered Capitalization Dividends Waived Gifts to Corporations

Capitalization surrendered without consideration, dividends waived, and all gifts to a corporation should be credited to surplus accounts, but should never be the basis for declaring dividends.

15. Dividends from Investments

In an industrial company, all dividends from investments in outside enterprises should be credited to surplus. If desired, special accounts can be maintained to show the return from certain investments, but the accounts should be closed into surplus without confusing them with the profit and loss from operation.

16. Unexpired Discount

Discount on bank accommodations should be considered as an asset when preparing a statement of assets and liabilities. A schedule should be made of the discounts showing the number, date, bank, due date, rate, discount, and unexpired portion of the discount. The total of the unexpired portions of the discounts is the unexpired discount.

17. Accrued Taxes

Accrued taxes should be considered as a liability when preparing a statement of assets and liabilities; if the amount due is not set up as accrued taxes among the current liabilities, a reserve should be set aside to cover the amount due.

18. Promoter's Expenses

Promoter's expenses are a charge against surplus account, but are not always written off immediately, being spread over a period of several years.

19. Administrative Expenses (meaning home office)

The salary and expenses incurred by executive and administrative offices should be prorated over the various auxiliary offices. The

apportionment of these may be made on a basis of the production, or sales of the auxiliary offices or plants.

20. General Expenses

This classification should include all the expenses of the business which are of a general character, salary and expenses of officers, and general office staff; in fact, all expenses incurred by the management in the supervision of the business, including executive and administrative expenses.

21. Factory Expenses

This classification should include all expenses of the factory at large, which cannot be assigned to particular departments because they are common to all; such as salary and expenses of the factory superintendent and his staff, light and power for elevators, insurance and taxes which cannot be applied to departments, accidents, etc. Factory expenses should be prorated equitably over the various departments, to be applied against the production of the departments.

22. Departmental Expenses

This classification should include all expenditures chargeable directly and specifically to each department for supplies used in the process of manufacture which do not enter directly into the product as a component part of it; also, rent of factory (computed according to required floor space), heat, light and power, building and machinery repairs, insurance and taxes, reserve for depreciation, and any charge for which the department is directly responsible.

Department expenses should be distributed equitably over the production of the department.

23. Good Will

Good will is a legitimate asset in an industrial enterprise and the most accepted method of computing the amount of good will is to take the total profits for the last five years and deduct from them five years' interest on the capitalization at seven per cent per annum; the balance is good will. The rate of interest is based on the assump-

tion that no capitalist would invest in an enterprise unless he was assured at least seven per cent annual return.

Good will should be written off the books during five subsequent years by charging off one-fifth against each succeeding year.

24. Relation of Profits to Investment

The relation of the profits to the amount of money invested is one important feature to be considered when performing a financial audit. The small percentage of profit on sales showing a large percentage on investment is preferable to a large percentage of profit on sales with a small percentage of profit on the investment.

25. Voucher Check

The common form of folding voucher check is undesirable for many reasons, and is being dispensed with. As a rule, the indorsement is overlooked in conforming to the many details required in executing the voucher. The indorsement is of greater importance than the receipt, and any voucher check which neglects the indorsement should not be used.

The most satisfactory form of voucher check is the check with a small form on the back of the check, which can be used to enter the necessary memorandum of the settlement, under which should be printed, "Indorsed in settlement of the above."

26. Control Accounts

In order to divide the responsibility for the work of keeping the books, large concerns are obliged to keep control accounts on the general ledger, which keep a record by totals of the detail entered in the various supplementary ledgers.

The control account shows what the balance of the supplementary ledger should be.

To illustrate, consider a sales ledger. The control account in the general ledger would be charged with the total sales posted to that ledger and credited with the cash receipts and sales credits for the ledger. Consequently, if the detail posting to the sales ledger is done correctly, the balance of the sales ledger must equal the balance shown by the control account in the general ledger.

This method has been very satisfactory, and has simplified the taking of the trial balance so much, that it is being adopted by most concerns.

It also enables the bookkeeper to show the results of the business promptly, even when the postings to the sales and purchase ledgers have been permitted to fall behind; because the accounts in the general ledger are few and the totals of the business can be posted in a short time, and thus the results of the operations of the business known.

27. Planning General Ledger

In planning a general ledger, it is very desirable to limit the accounts to as few as practical. The analysis need not be neglected, because the totals of four or five of the purchase journal items are posted to one account, for the detail of the account can be known (if question arises) by making a summary of the monthly totals of the purchase journal.

Another plan is to have a few pages of the ledger made especially for the expense accounts, by using a whole page for debits and a whole page for credits, and ruling five or six columns on each page. By using the columns for an analysis of the items and posting all the items to total columns debit and credit, so that the difference of the total columns will be the balance of the account and the analytical columns will show the detail of the total columns.

28. Excessive Valuation of Inventories

When the inventories are valued at excessive prices, a reserve should be set up to offset the excessive valuation.

29. Items Previously Charged to Capitalization

If a physical inventory includes items which have been previously charged to capitalization, the increased value of assets should be set up in some account in the nature of a reserve, until the proper adjustments have been made. To set it up as surplus is misleading. The same applies to tools, implements, etc., previously charged to capitalization.

30. Inventories of Merchandise Where Two Values Are In Evidence

Inventories should be figured at two values if profits are figured on the production: the greater at the market value and the lesser at the cost value. The difference between the totals of the inventories should be set up as a reserve.

	Market Value	Cost Value	Reserve
Material.....	190,401.10	167,501.30	22,899.80
Merchandise.....	215,981.70	201,662.15	14,319.55
Total.....	406,382.80	369,163.45	37,219.35

In the preparation of the statements attached to a report, the inventories are considered at the cost value, this being considered the most conservative. The reserve represents anticipated profits.

31. Purchases (in report)

If desirable, for any special reason, to draw attention to the credits for returns and allowances on purchases or the gross purchases, the amount of same can be carried short. The net amount is generally shown because a multiplicity of deductions in a report only confuses.

32. Supplies

The most practical method of handling supplies is to include the net cost of supplies in the expenses, general and manufacturing, showing only the net expenses in the statements and the value of the inventories of supplies in the balance sheet.

33. Dates Used In Reports

Never make the date January 1st when the books were closed as at December 31st.

34. Interest on Capital

Interest on capital should be set up as an expense when the interest is charged in lieu of salary of the proprietors of the business.

If making an audit to show profits, the interest should be set up separately no matter what the conditions are.

If making an audit for the parties in control of the business, interest on capital should be set up as a special item of profit and loss.

35. Closing Books of Corporations

When closing books of corporations, the profits should be transferred to surplus, and dividends authorized should be charged against surplus and credited to Dividends Payable.

36. Closing Books of Partnerships

When closing the books of partnerships, the profits and personal drawings should be carried to the partners' investment accounts.

37. Arrangement of Exhibits

In preparing a report, the main exhibits should be arranged in accordance with their relation to each other, the main exhibits being submitted first and the supplementary exhibits, statements and schedules following.

Exhibits are also arranged according to their relative importance.

38. Check Marks

Be neat and careful in making your check marks; the work of excellent accountants has been condemned severely because of slovenliness in this regard. The majority of business men take pride in the neat appearance of their books and regard with disgust, carelessness in marking the books, especially when done by a high-priced man. It is generally necessary to use different colored pencils to distinguish the different marks.

39. Queries

Queries arising in the course of the audit should be recorded on a working paper devoted to that purpose only, and when investigated and approved, the items should be checked off on the working paper.

40. Source of Statements

In making notes of statements made by others, state who made the statements, when, and endeavor to record their exact words without elaboration. *Always state facts.*

41. Binding Reports

Reports are bound in book form by using a cover and binding the sheets in the cover with eyelets. The use of ribbons, placed through the eyelets and fastened in the front of the cover with a seal has been discontinued.

42. Letter Heads

Professionally, it is not good taste to have self-praise or advertising matter printed on the letter heads. Your name, public accountant, auditor and accountant, or your degree, your address, associates, if any, are all that first-class accountants use.

43. Forms of Report

The idea of submitting these various forms has been to set forth the principle and not to show forms which are to be copied without considering the circumstances. Always have a regard for the fitness of things. To follow set rules is not always expedient. Consider what is appropriate to the conditions and endeavor to prepare a report suited to the business conditions.

44. Checking

When auditing never, under any circumstances, arbitrarily check items which are unchecked. Never do such a thing during the progress of the audit, especially when seeking a difference. Even though you do give it up, do not make arbitrary check marks.

Keep a record of the marks used for checking postings and vouching items.

A distinctive mark should be used for checking, so that you know by the mark why the check was made, and a memorandum should be made on the working papers of the marks which were used.

PART II

COST ACCOUNTING

I. COST SYSTEMS IN GENERAL

A cost system is a method of bookkeeping designed to show the cost of manufacture, and to provide a means of reckoning the basis upon which it is profitable to sell the production. It should also show the results of purchasing, conserve the material, expose unnecessary losses and supply suitable statements of the progress of the manufacturing department.

1. Elements of Cost

The elements of cost are primarily material, labor and expense, and under ordinary conditions all expenditures can be so classified.

Material:

Labor: { Productive.
Nonproductive.

Expense: { Departmental.
Factory at large.
General Expense.
Selling Expense.

Work Purchased

Expenditures are classified as work purchased, when an outside party is paid for performing some special operation which cannot be classified as labor or material. If the work was done in the factory, it would be a labor cost; but since it is not, it cannot properly be classified as labor, especially when the percentage costs are based on the per man hour. Since it cannot be classified with either labor or material, it should be treated as an independent factor and set up by itself. If the expense percentages are based on labor and material, it should not be included in the amount upon which the percentage charges are computed; but if the percentage charges are

based on the total prime cost, it should be included before the percentage charges are computed.

What Is Material?

There has been considerable discussion regarding this question, and in some cases it has been vexatious discriminating between merchandise, material, and supplies.

The product of one business may be the material of another; consequently, the same must apply to a compound business, in which case the principle would apply to departments. But it would not be expedient to record as sales the product of one department delivered to another; and even if actually sold, conditions might be such that these sales would be a byproduct set up as an offset to the material cost.

Shoes are the product of which leather is the material; leather is the product of which hides are the material. If the business was simply making shoes, the material would be leather; but if the tannery was operated in connection with the shoe factory, and tanned leather was a considerable item of the sales, the product of the tannery must be the raw material of the shoe factory.

Intercharges

In a compound business, the product of one department delivered to another as sales should be treated as intercharges, and the analysis of the sales and purchases should each have a column for intercharges, in order to show the amount of intercharges on each. The amount of intercharges on the sales journal should equal the intercharges on the purchase journal.

Supplies

The simplest and most satisfactory method is to treat as supplies all articles used in a general way in the department, which are not a component part of the product and cannot be charged to the orders as a definite quantity.

Prime Costs

The prime costs are labor and material. In some cases, the expenses are based on the labor only. The latter method has been re-

ceived with favor, when the material cost varies so extraordinarily that it would be inequitable to base the expense cost on it.

Percentage Costs

After the prime costs have been determined, percentages are added for expenses; these are called the Percentage Costs.

Basis of Computations

In all cases of similar import, the past must be the basis for the future computations, and to be accurate, all contributing conditions should be considered whether favorable or otherwise. (See condensed statements of profit and loss, Report Forms 1 and 2.)

2. Kinds of Cost Systems

There are many kinds of cost systems and some are combinations of various methods. The following are some of the methods of keeping costs:

(1) *The cost system in which the records are kept according to order numbers.*

In this method, it is customary to provide a cost sheet for each and every order number. The cost sheet should be ruled so that the items will be grouped according to the desired analysis and provision made for a summary of the results. (See Form No. 7 for illustration of ruling.)

(2) *The cost system in which the records are kept according to departments.*

In this method, a cost sheet is kept for each department. The cost sheet should be ruled so that the items will be grouped according to the analysis and provision made for a summary of the results. It should also provide for a record of the quantity of work passing through the department, according to the unit of measurements. (See Form No. 21 for illustration of ruling.)

(3) *The cost system in which the records are kept according to the operations or processes.*

In this method, a cost sheet is provided for each and every process. The cost sheet should be ruled so that the items will be grouped

according to the analysis, and provision made for a summary of the results. It should also provide for a record of the quantity which underwent the process and the rate per unit of measurement. (See Form No. 21 for illustration of ruling.)

(4) *The cost system in which the records are kept according to machines.*

This is known as the machine cost and the cost sheets are made for individual machines or groups of machines. The cost sheet should be ruled so that the items will be grouped according to the analysis, and provision made for the summary of the results. It should also provide for the record of the results from operating the machines and the number of hours in operation.

A rate is charged for the time the machine is occupied. This rate is known as the "machine hour" and is based on the expense of operating the machine, considering only the number of hours in operation. (See Form No. 21 for illustration of ruling.)

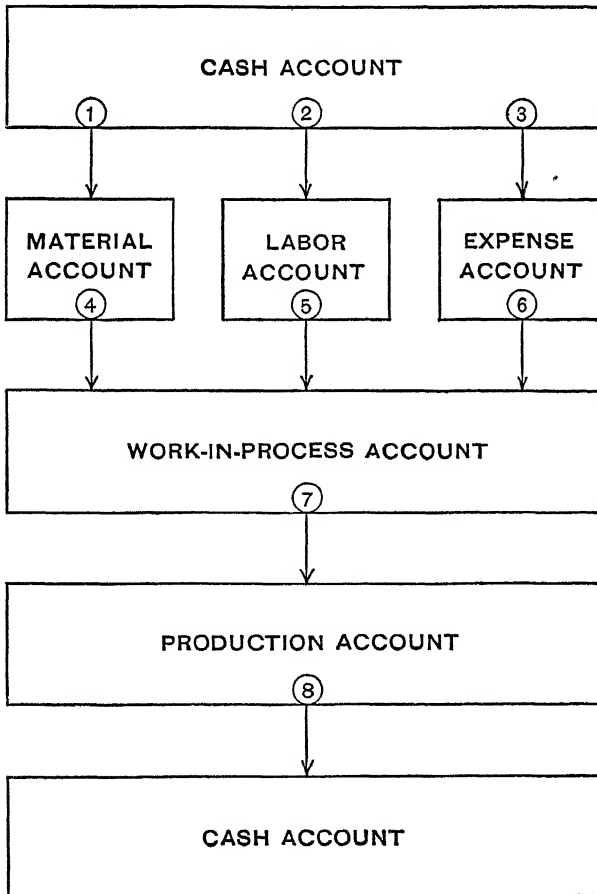
II. PLANNING THE SYSTEM

1. Planning the Controlling Accounts

The classification of the items, the arrangement of the ledger accounts, and the method to be adopted are the difficult features.

For this reason, I submit the chart showing the grouping of accounts, which I *entreat you to study until your mind automatically groups the accounts* and arranges the control of the operations *as described*.

Plan of Operation
Chart Showing the Grouping of the Accounts



Each one of the rectangles shown in the chart represents an account on the ledger.

Cash is paid for material in detail and the cash account is credited with the total, which total is debited to the material account. Toll Station No. 1 is the material column.

Cash is paid for labor in detail and the cash account is credited with the total, which total is debited to the labor account. Toll Station No. 2 is the labor column.

Cash is paid for expenses in detail and the cash account is credited with the total, which total is debited to the expense account. Toll Station No. 3 is the expense column.

Material is charged to the cost sheets for work in process in detail and the material account is credited with the total, which total is debited to work in process account. Toll Station No. 4.

Labor is charged to the cost sheets for work in process in detail and the labor account is credited with the total, which total is debited to work in process account. Toll Station No. 5.

Expense is charged to the cost sheets for work in process in detail and the expense account is credited with the total, which total is debited to the work in process account. Toll Station No. 6.

As the work is completed, the cost sheets are figured in detail and the total of the completed cost sheets is debited to the production (or similar account) and credited to work in process. Toll Station No. 7.

Now study the following concrete plan of operating the cost system No. 1, and endeavor to comprehend the relation of the accounts to each other before studying the detail of the items:

CONCRETE PLAN OF OPERATING THE COST SYSTEM No. 1

(1)	Balance commencing the period.....	\$17,691.83
(2)	Charges made in detail to the Cost Sheets, during the period:	
	Labor.....	1721.60
	Material.....	4782.95
	Expense.....	640.87
(3)	Total in operation during period.....	<u>\$24,846.25</u>
(4)	Deduct Cost Sheets for orders completed during the period....	10,791.44
(5)	Balance at end of period.....	\$14,054.81
	Value of Work in process at the end of period. List of unfinished Cost Sheets should equal this balance. This balance is the balance for the beginning of the following week.	

There are three classes of expenditures to be considered, and, no matter how they are ultimately subdivided, you should consider them primarily as:

Material.

Labor.

Expense.

You should study the chart until your mind inadvertently groups them in this manner.

The cash is paid for material, labor and expense; the respective accounts on the ledger are charged and the cash account credited. The entry should be:

Material, Dr.	\$1005.00
Labor, Dr.	960.00
Expenses, Dr.	100.00
	<hr/>
To Cash, Cr.	\$2065.00

The material, labor and expense are charged to cost sheets, which are a record of "Work in Process." The amount so charged to cost sheets is controlled, and the work in process account on the ledger is charged, and the material, labor and expense accounts on the ledger are credited. The entry for same should be:

Work in Process Account, Dr.	\$7154.42	
To Material Account, Cr.		\$4782.95
" Labor Account, Cr.		1721.60
" Expense Account, Cr.		649.87
	<hr/>	<hr/>
	\$7154.42	\$7154.42

When the work is completed, the total value of the completed cost sheets is charged to the production account (or similar account) on the ledger and credited to the "Work in Process Account" on the ledger. The entry should be:

Finished Product Account, Dr.	\$10791.44
To Work in Process Account, Cr.	\$10791.44

After examining the chart, it must appear to you that creating a cost system revolves itself primarily into a matter of arranging the control accounts and providing a means of controlling the passages from one account to another.

The material is delivered to the work in process. What is the best, simplest and most practical method of making a record of the delivery, and securing a competent record of the material delivered to work in process?

If a requisition is made for the material, the store clerk or party in charge of the material could make the necessary entries on the slip for the identification and price of the material actually delivered, and the requisition could be used as a basis for the charge. In fact, any form of any kind, which is a competent record of the material delivered, could be returned to the cost department, to be used as a basis of the charge for the material on the cost sheet.

The forms for material to be charged to cost sheets could be figured and totaled on an adding machine, and the detail posted to the cost sheets direct from the forms.

The labor is expended on work in process. How can a record be made of the work which will not only insure returns for the expenditure, but provide a means of charging the labor to the cost sheets for work in process?

Study carefully the different classes of time cards, and choose the method which appeals to you as most adapted to the requirements of the situation. (See Operating Forms 1 and 2.)

The expenses must be added as an additional or supplementary cost. What basis should be employed to secure an equitable distribution of the expenses?

(1) Work in Process Account on the Ledger

Work in process account on the ledger is the same kind of account as the sales ledger account on the private ledger.

The sales ledger account is charged with a total for sales made; but the items are charged in detail to the individual accounts in the sales ledger. Collections are credited in total to the sales ledger account; but the items are credited in detail to the individual accounts on the sales ledger.

So it is with the cost system. Work in process account is charged with a total for material, but the items in detail are charged to the individual cost sheets. The labor is charged in total to the work in process account on the ledger; but the items are charged in detail to the individual cost sheets. The expense provision is charged in total to the work in process account on the ledger; but the items in detail are charged to the cost sheets.

If a list is made of the accounts in the sales ledger, the total of the balances (trial balance) in the sales ledger will equal the balance of the sales ledger account on the private ledger. So it is with the cost system; if a schedule is made of the cost sheets which are uncompleted, the total of the uncompleted cost sheets will equal the balance of the work in process account on the ledger.

To sum the matter up briefly: the work in process account on the ledger is simply a ledger account controlling the work in process.

(2) The Material Account on the Ledger

The material account on the ledger is an account controlling all material on hand, which has not been delivered to work in process of manufacture, excepting articles classified as manufacturing expense supplies.

The balance of the material account should be the value of the inventory of the material and, when an inventory is taken to prove the work, the physical inventory of material should be the equivalent of the balance of the ledger account.

The material account may be subdivided into as many accounts as desirable; but the disposition to subanalyze is generally carried to extremes, the result being an enormous amount of labor without any valuable return, and quite often the main objects are swamped in a mass of valueless detail.

Under the heading material could be grouped every conceivable article used in the factory which is delivered under control; but it is unadvisable to do so.

Discriminate between supplies and material by classifying as material only articles that become a component part of the product.

Experience has demonstrated this to be the most practical plan.

(3) Pay Roll Account on the Ledger

The pay roll account is an account to which all labor is charged.

The labor account should be absorbed by the cost system, unless advances are made or advance charges made for wages.

(4) Expense Accounts on the Ledger

The expense accounts on the ledger may be subdivided into as many accounts as it is deemed expedient. The accounts should be grouped or analyzed, so that it is possible to determine (1) the departmental expenses, (2) the factory expenses, (3) the general expenses, and (4) the selling expenses.

The total of the expense accounts should not exceed the amount provided to meet expenses (by charges made to cost sheets), unless some payment has been made for advances.

The credits to the expense accounts should be sufficient to cover all accrued expenses and transfer the expenses to the cost sheets.

2. Method of Operation

(1) Balance of Work in Process Account at the Beginning of the Week. (See plan of operating system No. 2.)

The balance of the work in process account on the ledger should be the value of the production in various stages of manufacture, as shown by the cost sheets, and a schedule of the cost sheets at any closing period should equal the balance shown by the ledger account. Work in process account is the account representing the entire product in process of manufacture. It may be subdivided into departments, but this is a supplementary matter to be treated hereinafter.

(2) Charges Made to Cost Sheets

The charges made to the cost sheets should be controlled and analyzed, so that the total amount is known and also an analysis of the total.

The credit to material account for the charges made to cost sheets should reduce the material account to the inventory value of same.

The credit to labor account should offset the account for pay roll on the ledger.

OPERATION AND CONTROL OF COST SYSTEM No. 2.

LEDGER ACCOUNTS	Work in Process. Total	ANALYSIS OF CHARGES TO COST SHEETS		
		Material	Labor	Expense
(1) Balance of work in process account at the beginning of the week.....	\$6739.15	\$4150.75	\$1910.60	\$675.80
(2) Charges made to the cost sheets during week.	2600.00	1100.00	950.00	550.00
(3) Total in operation during week	9337.15	5250.75	2860.60	1225.80
(4) Cost sheets for completed orders.....	2100.00	1020.15	829.30	250.55
(5) Balance for work in process account at the end of the week.....	7237.15	4230.60	2031.31	975.25

(3) Total in Operation

This total shows the value of work in process which was in operation during the week. It does not mean that the work in process at any time during the week was worth that amount, as the majority of it may have been delivered during the early part of the week.

(4) Completed Cost Sheets

The cost sheets should be scheduled as they are completed and an analysis made of them to determine the amount of labor, material and expense which was charged to them. The analysis of completed cost sheets is required only for proving, and is not essential unless you desire to prove each class of entries, as shown on the plan of operating No. 2.

(5) Balance of Work in Process Account at the End of the Week

The balance of work in process at the end of the week is similar to the balance at the beginning (No. 1) and this balance at the end of the week is the balance for the beginning of the next succeeding week.

Proof of Work

The cost sheets are listed at the beginning of the period; charges are made to the cost sheets during the period; all cost sheets for completed orders are scheduled and analyzed according to material, labor and expense (or any analysis planned) and the total is deducted (see No. 4 of plan).

The balance of the cost sheets should then be listed on the same form and the result, if correct, will be the total of the uncompleted cost sheets (see No. 5), and an analysis showing the amount of labor, material and expense.

The object of operating the cost system according to the analysis of the charges is: It gives a proof of the work in such a way, that if an error was made in the work, it will not be necessary to go over the entire work but only the part in which the error occurred. If the error is in the pay roll charges, examine them; if in the material, examine the material; if in the expenses, examine the expense.

Basis of Percentage Charges

It is inadvisable to base expenses on a period of a week or a month, as this necessitates carrying over from one period to another a surplus or deficit.

The percentage charges, under normal conditions, should be based on the past year or years. Therefore, the business should be subjected to rigid scrutiny, and all contributing conditions considered.

Idle Periods

The fixed expenses of a business, or department of a business, are continuous, whether in operation or not, and the expenses of preservation during an inactive period is as much a cost of operation chargeable to an active period, as the fixed expenses of the active period; for it is necessary to preserve the integrity of the business during the inactive period, in order to make possible its operation during the active period.

To illustrate: If a business with an annual rental of \$12,000 was of a character prohibiting operation four months during the year, it would be deceptive and inequitable to compute costs on a basis of

\$1,000 per month, because (other elements being accurate) the results would show an additional loss of \$4,000 per annum.

Verifying Percentages

In a cost system where the percentage charges are based on annual statements, the provisions made for such expenses should be so arranged, that comparisons can be made monthly with the ledger accounts for such expenditures.

Provisions for Expense Account

When the cost system results are incorporated on the general ledger, it has proven very satisfactory to arrange the expense account so that, when a trial balance is taken, the accounts are in order, making it possible to foot the expenses, and, instead of crediting the expense accounts with the percentage charges, which were made on the cost sheets, allow the accounts to stand in their integrity, making suitable provision for unexpired expenses, depreciation and long term expenses to insure an accurate record of the expenses which have actually expired; then accounts should be set up in the ledger to show the provisions made to meet them.

3. The General Books and a Cost System

The general books can be made to coöperate with the cost system and matters simplified by arranging the purchases for account of material and expenses to meet the requirements of the cost system.

If the general books are designed so as to give you all the information required for the cost system, it is not advisable to make any change, especially at this time.

Production Ledger

A production ledger can be kept as a part of the cost system and only the accounts required for the cost system kept in same, a balance being entered in an account for general ledger to establish the equilibrium of the production ledger.

The accounts in the production ledger would be as follows:

General Ledger Account.

Work in Process Account.

Material Account.
Labor Account.
Production Account.
Provision for Departmental Expenses.
Provision for Factory Expenses.
Provision for General Expenses.
Provision for Selling Expenses.

The general ledger account would have a balance, necessary to establish the equilibrium of the production ledger.

The work in process account would be the record of work in process as described heretofore.

The labor account would be the provision made to cover the cost of labor and would be the opposite of the balance on the general ledger.

The provision for department expenses should be a credit and the equivalent of the total debits of the accounts in the general ledger for department expenses.

The provision for factory expenses should be a credit and the equivalent of the total debits of the accounts in the general ledger for factory expenses.

The provision for general expenses should be a credit and the equivalent of the total debits of the accounts in the general ledger for general expenses.

The provision for selling expenses should be a credit and the equivalent of the total debits of the accounts in the general ledger for selling expenses.

Thus it is evident, the production ledger is the reverse of the general ledger; and a trial balance, showing the results taken from the ledgers, when placed so the accounts are opposite each other, should show results which offset each other.

4. How to Plan the Cost System

(1) Examine the general books and prepare a condensed statement of the profit and loss for the year or several years (see Report Forms Nos. 1 to 9). This is to be the basis upon which the percentage charges are made, and will show the ratio of the

various elements of cost to the whole cost, to the sales and to each other.

The information required to prepare the condensed statement of profit and loss can generally be obtained from the trial balance taken from the books before closing.

While making the examination of the general accounts, it is advisable to investigate the material accounts and get some idea of the way it has been customary to handle material on the general books. Note how the invoices are approved, entered and paid.

(2) Look over the plant, request some one to show you over who is conversant with the various operations and processes, who can commence at the beginning and follow the production through the various stages and give you an intelligent description of it so that you can (*a*) comprehend the general scheme of operation, (*b*) get an idea of the methods of delivering material, (*c*) the way the material is worked, (*d*) the records of the work which are made in the factory, (*e*) the departments and object of each, (*f*) the process and operations of each, (*g*) the records of labor, (*h*) the time consumed to perform the operations, (*i*) the time the product requires from start to finish, (*j*) the packing of the product, and (*k*) the delivery.

Commence at the place where the raw material is received, and follow it through every process until delivered.

When looking over the plant, group in your mind all persons doing work of a similar character, and do not be dismayed by a large force of employees.

Do not entertain thoughts of the magnitude of a plant, for it is easier to put a system in a plant employing two thousand persons, than it is to put a system in a plant employing twenty. Consider for your purposes one thousand persons doing the same thing as one person; learn to do this and you have made a step in advance.

Make notes of the various operations, the time consumed and the number so employed.

(3) Consider the various methods of operating cost systems and decide whether it would be advisable to operate the system according to individual orders, departments, or otherwise. If you cannot decide upon the general outline or control, examine the departments in detail

and prepare a plan of keeping costs for each; then decide upon the control.

(4) Draw up a rough outline of your plans, seclude yourself some place where you are sure you will not be disturbed, and go over your plans carefully to make sure the foundation is sound.

(5) Work up the details one at a time, and be sure to make careful notes of your prospective methods and reasons for them.

Material

Examine carefully everything in connection with the material, its value, quantities, stores, issue, and formulate a plan of controlling it. As the material is delivered to work, it should be charged. Devise a method of making the charge and the means of ascertaining the cost of the material at which the charge is to be made.

The cost value of the material is the purchase value plus charges for storage, freight, etc.; but this is not generally used.

Labor

Examine carefully the labor and see if it is possible to make a record of the cost without expecting too much of the employee.

Decide upon the style of time cards. (See Forms Nos. 1 and 2.)

Consider the nonproducers and decide whether their time should be prorated over the whole or special operations.

As the labor is performed the record of the time is made on the form provided, and the charge to the cost sheet is based on that.

There are two classes of labor, productive and nonproductive.

Productive labor is the labor chargeable to specific costs, and nonproductive is all labor not chargeable to specific costs, which must be prorated over the items of productive labor.

The nonproductive labor should be prorated over the productive labor if your plans require the full cost of labor.

Wages of Foremen

The question of how to treat the wages of the foreman has been vexatious at times, but a solution is easy if the right principle is applied.

When the foreman is the brains of the employees under his super-

vision, his wages are a part of theirs, because he supplies what is deficient in them. Therefore, if you are paying ten employees \$15.00 per week and paying a foreman \$50.00 a week to supervise their work, each one of the employees cost \$20.00 per week.

(6) After preparing the plans for making and collecting the records in the factory, it is necessary to design the forms for the cost department to use in computing the records.

Factory Records

Do not burden the employee with records, remember he is not a bookkeeper and is not supposed to keep accounts. Strive to make his end as simple and easy as possible.

In a well-regulated factory, the basis of a cost system already exists, and it is simply a matter of gathering the necessary figures and arranging the control of the elements of cost, so that the costs may be determined and the gross results known.

Every business has developed certain records and systems which are valuable and suitable to their needs; for this reason it is extremely bad policy to predetermine the system simply because it was successful elsewhere. It should be your purpose to examine carefully every little detail of the business, in order to incorporate old methods in the new system.

The custom of prearranging a cost system, and entering a factory with the determination of making the factory conform to the system, is unreasonable and has caused more disappointment to all concerned than anything else, not to mention the excessive financial loss entailed.

Work Order

Where a cost system is operated, orders should be provided for all work of general character, such as repairs, construction, etc. This is to identify the work and make it possible to determine the cost. These orders are called work orders to distinguish them from the regular orders.

Planning Charges

When planning how to make the charge to the cost sheet for labor or material, ascertain your objective points, and devise the

simplest and shortest way of getting the charge from one point to the other point.

By that I mean—do not confine yourself to set rules and argue that, being delivered from a storeroom, an issue book must be kept in the storeroom; that this book must be analyzed and the result credited to stores; that a journal must be kept from which to make the charges to the cost sheets, etc. That is all very good if the firm desire a mass of valueless detail and have no regard for expense. But the majority of business men only care for results and will be just as well satisfied if you use the delivery slip, which might also be the requisition, and if the cost system records are made on it; you can get just as satisfactory results by simply listing the slips on an adding machine and making the charge to the cost sheets direct from the delivery slip.

Machine Shop Expense

The maintenance of a machine shop operated in connection with a large factory or mill, can be covered by a percentage to be added to cover the expense of it, unless the machine shop is occupied with some work not chargeable to expense. If the machine shop is not essential to any product or department, it should not be considered an expense against it.

Factory Expenses and Supplies

The author believes that the most satisfactory solution of how to handle the cost of factory expenses and supplies is to base the charge on the annual expense incurred, and add a percentage to cover it.

Heat, Light and Power

The maintenance of a heat, light and power plant should be charged according to the requirements of the departments, and a percentage based on the cost of the previous year added to cover it.

Perpetual Inventory

It was always deemed absolutely essential to a cost system to have a storeroom, and to systematically issue material in order to obtain a record of it.

In fact, the storeroom and cost system have been synonymous, the storeroom being considered so important to a cost system, that its establishment was the first consideration.

The following method devised by the author eliminates the necessity of a storeroom, and, while it provides excellent records of the material without one, it is valuable when operated in conjunction with the storeroom.

Registering Material

Everything is registered in the receiving record (made in duplicate) when received, without regard to the character of the article. This register number is a mark of identity and is put on the goods in some manner which enables the number to be characterized on sight as the register number. The register number is placed on the invoice when the invoice is approved by the receiving clerk; it is placed on all books of record where the entry for the invoice is made and placed in the ledger account which keeps a record of the purchases. These numbers are entered into the receiving book in their numerical order, and each lot receives a number. For receiving record form see Form No. 3.

If several classes of articles are received in one lot, separate numbers may be assigned to each class. The first number might be lumber, the next oil, the next office supplies, etc. This number being placed on the case or package or object, is, as stated, a mark of identity; and when passing through the factory, if question arises regarding any unopened case, information regarding the case can be obtained instantly by referring to the number on the receiving record.

When the invoices are approved, the full details of the articles should be entered on the receiving record, which is used for reference. If an inventory is made, the numbers are an index to the prices and indicate the time the material came into the factory. These numbers are used in keeping the stock records, and are entered on the delivery slip for charge to work in process. The number provides a means by which the cost department can price the delivery slips at actual purchase prices.

Charges for freight, brokerage, etc., which are an additional cost of merchandise can be made to the merchandise account in total, and

posted in detail to the record on the stock card, thus insuring a charge for material at full cost.

The charges made to the cost sheets should show these numbers, and any question regarding the material can be referred instantly to the original invoice, so that the net results from specific lots of material become evident without keeping a special record.

A stock card or suitable record of each lot can be kept according to these numbers and complete record of stock made; these are indisputable because they are supported by the invoices and cost sheets. The stock card can be made out from the invoice after it is approved by the receiving clerk.

This provides a means of establishing a perpetual inventory in detail which requires very little work. It establishes a common identity to material which is used by all departments in the factory and office. It makes it possible to keep in close touch with the purchasing agent and keep advised regarding his judgment in making purchases.

Results of Operating the Cost System

The results of the operation of the cost system should be presented in a simple statement, which can be conveniently analyzed and verified quickly, by reference to records which are unquestionable.

5. Correct Foundation for Cost Figures and Reports

Percentage Costs in General

The most common error in figuring costs is to prepare a wrong basis. To obviate the disappointment which must inevitably result from a wrong basis, the author suggests making a condensed statement of profit and loss. (See Report Forms Nos. 1 and 2.)

When the prime costs are labor and material, divide the total expenses to be provided for, by the total of the labor and material. This gives the percentage to be added to labor and material for such expenses.

Always use as a basis the total labor as per pay roll and increase the detail amount by the percentage for non-productive labor before computing the percentage charges.

Study carefully the condensed statement of profit and loss (Report

Form No. 1) and the relative percentage of the various elements of costs.

The percentage to be added to the cost of (1) material and (2) labor to provide for (3) manufacturing and (4) general expenses would not be 12% because the expenses are 12% of the manufacturing cost. The total percentages of the expenses divided by the total percentages for labor and material would give the percentage to be used.

Hypothesis:

$$(3+9) \div (57 + 31) = 13.6\%$$

$$(\$10,693.77 + \$30,766.55) \div (198,551.28 + 107,611.43) = 13.6\%$$

The cost of manufacturing being determined, the provision for selling expenses (where selling expenses are based on sales) and the provision for profits should be made by dividing the manufacturing cost by the percentage the manufacturing cost is to be of the sales, and marking off two points.

Hypothesis:

$$\frac{\text{Manufacturing Cost} \times 100}{\text{Percentage Manufacturing Cost is of Sales}} = \text{Price to Sell.}$$

In a compound business, the percentages of the elements of cost are affected by the trading department of the business. The expense ratios should be smaller, because the trading department assists in carrying the expense loading.

To determine the percentages which the manufacturing costs are of the sales; first compute the percentages the elements of cost are of the manufacturing cost; next compute the percentage the cost of sales is of the sales.

Multiply the percentage the cost of sales is of the sales, by the percentage the manufacturing expense is of the manufacturing cost, and the result will be the percentage the expense is of the selling value. The same applies to labor and material.

Report Form No. 3

This is a condensed statement of the profit and loss of a simple trading business.

The important features of the business are as follows:

- (1) The net cost of the merchandise,
- (2) The expenses of conducting the business,
- (3) The expenses of selling, and
- (4) The net sales.

In preparing a report of such a business, it is not proper to charge any portion of the general expenses to selling expenses. Confine the selling expenses entirely to expenditures chargeable directly to selling expense.

Report Form No. 4

This is a condensed statement of the profit and loss of a manufacturing business disposing of its product through selling merchants.

The important features of the business are as follows:

- (1) The cost of material,
- (2) The cost of labor,
- (3) The expenses of manufacturing,
- (4) The expenses of conducting the business,
- (5) The cost of the manufactured product,
- (6) The expenses of selling, and
- (7) The net sales.

In preparing a report of such a business, it is not proper to charge any portion of the general expenses to manufacturing expense or selling expense.

The prime business of the company is manufacturing and the expenses are all chargeable to manufacturing cost, except expenditures chargeable directly to selling expenses, such as advertising, commission, brokerage, etc., paid in addition to the regular commission and guarantee.

Report Form No. 5

This is a condensed statement of the profit and loss of a business which purchases merchandise in addition to manufacturing it, but does not prepare the inventories to show the value of the merchandise separate from the material.

This form is submitted to show the method of entering the merchandise purchases, and arriving at the cost of material and merchandise consumed to produce the sales.

The important features of the business are as follows:

- (1) The cost of merchandise and material,
- (2) The cost of labor,
- (3) The expenses of the factory,
- (4) The expenses of conducting the business,
- (5) The expenses of selling, and
- (6) The net sales.

Report Form No. 6

This is a condensed statement of the profit and loss of a compound business. The prime division of the business is manufacturing and the selling is only incidental.

The important features of the business are as follows:

- (1) The material consumption,
- (2) The cost of material,
- (3) The cost of labor,
- (4) The expenses of manufacturing,
- (5) The manufacturing cost of production,
- (6) The cost of sales,
- (7) The expenses of conducting the business,
- (8) The expenses of selling,
- (9) The sales of waste, and
- (10) The net sales of merchandise.

This form is submitted to illustrate the method of determining the cost of the production, and relation of sales of waste to the consumption of material.

The sales of waste are an offset to the material consumption and should be deducted from the material consumption to determine the cost of material.

Classify as selling expenses all expenditures which could be eliminated if the sales were made through selling agents.

If a selling division is maintained and the general expenses are prorated over the manufacturing and selling divisions, show the

amount so charged separately from the regular division charges and also show the basis upon which the expenses are prorated.

Report Form No. 7

This is a condensed statement of the profit and loss of a furniture business which buys rough, unfinished parts, finishes them and sells the finished furniture.

The important features of the business are as follows:

- (1) The cost of sales,
- (2) The expense for salary and wages,
- (3) The other expenses of conducting the business,
- (4) The whole cost, and
- (5) The net sales.

The form is submitted to show the method of setting up labor under such conditions.

When labor is an element of cost included in the inventory values of a trading business, such labor should be set up as part of the cost of the merchandise, before deducting the inventory for the end of the period.

Report Form No. 8

This is a condensed statement of the profit and loss of a complex trading business.

The important features of the business are as follows:

- (1) The cost of material and merchandise,
- (2) The cost of labor (when an added cost),
- (3) The expense for salary and wages,
- (4) The other expenses of conducting the business,
- (5) The whole cost, and
- (6) The net sales.

The form is submitted to show the method of setting up labor in a trading account, when labor is an element of the cost of sales.

When labor is an added cost included in the sale as part of the sales, such labor should be set up in the trading account after showing the cost of the material.

Report Form No. 9

This is a condensed statement of profit and loss of a simple trading business.

The important features of the business are as follows:

- (1) The cost of sales,
- (2) The expenses of conducting the business,
- (3) The expenses of selling, and
- (4) The net sales.

This form is submitted to show the method of setting up duty, foreign freight, etc., in the trading account.

The above items, being part of the purchase cost included as inventory values should be set up as part of the total charges, before deducting the inventory for the end of the period.

III. PERCENTAGE COSTS

1. Determining Percentages

After the material and labor cost has been computed, for either the department or the plant at large, a percentage is added to said cost to cover the expenses. More disappointment is caused by making errors in determining the percentages to be employed than in any other way. Extreme care should therefore be used when preparing the percentages.

Percentage of Expense Based on Labor Cost

If the percentage of the expense is to be based on the labor charge, ascertain the amount of the labor and expenses for the year, and divide the total expense by the total labor.

Hypothesis:

$$\text{Expenses} \div \text{Labor} = \text{Percentage.}$$

This percentage is the ratio of the expenses to the gross labor charge. Consequently, if the charge to the cost sheet is for productive labor only, the productive labor must be increased by the percentage for nonproductive labor. To determine the percentage to be added to productive labor for nonproductive labor, divide the nonproductive labor by the productive labor.

Hypothesis:

$$\text{Nonproductive Labor} \div \text{Productive Labor} = \text{Percentage.}$$

The percentage is the ratio of the nonproductive labor to the productive labor.

Selling Expenses

The cost of manufacture should be determined before provision is made for selling expenses, because the ratio of the selling expenses

is to the sales, and is not in any way influenced by the labor or material cost.

After determining the whole cost of manufacturing, a percentage should be added to provide for selling expenses. To determine this percentage, divide the selling expenses for the year by the whole cost.

Hypothesis:

$\text{Selling Expenses} \div \text{Manufacturing Cost} = \text{Percentage.}$

This is the ratio the selling expenses are to whole cost.

Percentage for Profits

If the intention is to add a percentage to the cost to provide a profit based on the sales, the best method is to multiply the whole cost by 100 and divide the result by the percentage the whole cost bears to the selling price.

Hypothesis:

$100 \text{ per cent} - \text{Percentage for profit} = \text{Percentage of Whole Cost to Selling Price; } (\text{Whole Cost} \times 100) \div \text{Percentage of Cost} = \text{Price to Sell.}$

It simplifies matters if you charge all supplies to appropriate expense accounts and include in the percentage costs a sum sufficient to meet them.

Distributing Unproductive Labor and Expenses

When the expenses are applied to the labor cost on a basis of per man, hour, or any method using the labor as the only basic cost, the pay roll can be made up according to departments on Form 11, and the expenses and unproductive labor can be applied in whole or according to departments on a percentage basis or on a basis of fifty-two weeks.

The pay roll should be made up according to departments, and the productive and nonproductive labor shown. The expense chargeable to each department for the week should be entered opposite the department and the total expenses of the department shown.

The total expenses and the nonproductive labor should also be shown in the column provided, and the percentage to be used as a basis of distributing the expenses and nonproductive labor over the productive labor, determined by dividing the productive labor by the nonproductive labor plus the expenses.

With this method of distributing the expenses, it is a very simple matter to compute individual orders, if you have the material and productive labor.

Hypothesis:

Cost of Material.....	\$200.00
Pay Roll (productive only).....	100.00
Expenses 65% of Pay Roll.....	65.00
	<hr/>
Manufacturing Cost.....	365.00
Provide 20% for profits and selling expenses.	
$(\$365.00 \times 100) \div 80 =$ Sell for	\$456.25

2. Use of Percentages

Computing Costs. (First Plan)

Plan of computing the cost where the basic costs are labor and material.

Cost of Material.....	\$112.60
Productive Labor	\$47.60
Nonproductive Labor 10%.....	4.76
	<hr/>
Cost of Labor	52.36
	<hr/>
Cost of Labor and Material.....	\$164.96
Expenses 11% of Prime Cost.....	18.15
	<hr/>
Manufacturing Cost	\$183.11
Provide 10% for Selling Expenses.	
Provide 20% for Profits.	
$(\$183.11 \times 100) \div 70 =$ Sell for	\$261.59

The price to sell at in order to provide 10% for selling expenses and 20% for profit.

Computing Costs. (Second Plan)

Plan of computing costs where the basic cost is labor.

Cost of Productive Labor..... \$93.15

Nonproductive Labor 10%..... 9.32

Cost of Labor.....\$102.47

Expenses 60% of Labor..... 61.48

Material 301.70

Manufacturing Cost\$465.65

Provide 10% for Selling Expenses.

Provide 20% for Profits.

$(\$465.65 \times 100) \div 70 = \text{Sell for } \665.21

The price to sell at in order to provide 10% for selling expense and 20% for profit.

IV. INSTALLING A COST SYSTEM

When installing a cost system, it is extremely bad policy to set a time for the beginning of the system and endeavor to inaugurate the entire system at once.

Beginning the Use of the Factory Forms

It is more practical to commence by issuing the various forms to be used in the factory a few at a time, and give them a trial of a few weeks prior to the date set for the actual beginning. This enables you to watch how they work and will insure better results when you actually commence operations, because by that time, the factory has become accustomed to their use and the forms are in good working order. It enables you to direct personally the preparation of each and every form, if you install them a few at a time, thus insuring better results and avoiding the confusion and personal annoyance which must inevitably result if you endeavor to be all over at once. It will also be more satisfactory to the workman for you to show him personally how to prepare the forms, than it is to issue written instructions or have the directions given by another who can hardly be expected to comprehend your ideas until he has seen them in actual practice.

Material

Examine carefully the operation of the forms controlling the material issued, and criticise in your own mind every detail of the operation; see if they can be simplified without sacrificing accuracy and insure to the cost department the return of all forms issued. The object of a cost system in relation to the material is: to keep an accurate record of the material when received; to see that all material paid for has actually been received; to show the value of the material on hand at any and all times; to insure against loss by

waste or design; to show the results derived by the purchase of different grades of the same class of material.

It devolves upon you so to arrange the control of the material, that such necessary and valuable information is collected and recorded in a manner which is not open to question.

Pay Roll

Put your method of computing the labor cost in full operation and actually figure up the various details yourself before commencing the operation of the cost system; this will disclose the defects and weakness of the system and enable you to correct unforeseen contingencies which may arise. It will also provide something for the cost clerks to work on and obviate the necessity of having clerks capable of thinking.

Putting the Cost System into Operation

After you have the various forms in operation in the factory and the detail is being collected in a satisfactory manner, appoint a day for commencing the system, preferably a time convenient for making closings: if the cost system is to be operated weekly, the beginning of a week; if the cost system is to be operated monthly, the first of the month.

Prepare an inventory of the work in process in the factory as at the date set for commencing the system, and make cost sheets to cover all the work in process, so that the total of the cost sheets will equal the total of the inventory of work in process.

These sheets are the cost sheets for the beginning of the cost system and should be put in the binder for the cost sheets in operation, which cost sheets are a record of the work in process.

If it is impossible to take an inventory, the cost system can be commenced and operated just as if the preparatory results were complete; but in this case no work which was commenced prior to that date would have a complete record of the cost.

An inventory should be taken as at the date for commencing the cost system, and you should issue such instructions as are necessary to insure having it prepared so that it will give the totals in the way you require them to prepare the opening entries for the cost system. (See instructions relative to taking inventory.)

V. SCHEMES FOR SIMPLIFYING WORK

The following schemes for simplifying the figuring are given to convey an idea of what is possible:

- (1) Figuring the detail of the pay roll.
- (2) Figuring the charge for lumber used in cutting circles.
- (3) Figuring square stock.

1. Figuring the Detail of the Pay Roll

The figuring of the detail of the pay roll can be avoided by preparing a book with a page for each rate, and showing on the page the value of every quantity of hours from one to the number of hours in the full week.

Index the book by the weekly rates, and the time cards can be extended by referring to the wage rate book.

The same principle can be applied to any form of wages.

A wage rate book for hours of a 60-hour week based, on the weekly rate of pay, would appear similar to the following:

\$5.00 per week (60-hour week)

$\frac{1}{4}$ hour.....	\$.02 08
$\frac{1}{2}$ " .....	.04 17
$\frac{3}{4}$ " .....	.06 25
1 " .....	.08 33
2 " .....	.16 67
3 " .....	.25 00
4 " .....	.33 33
5 " .....	.41 66

A wage book for hours of an 8-hour day would appear similar to the following:

\$4.10 per day (8-hour day)

$\frac{1}{4}$ hour.....	\$.12 81
$\frac{1}{2}$ " .....	.25 63
$\frac{3}{4}$ " .....	.38 44
1 " .....	.51 25
2 "	1.02 50
3 "	1.53 75
4 "	2.05 00
5 "	2.56 25

To prepare a book of this character, requires considerable time; but, when completed, it is invaluable, because it expedites matters and obviates the necessity of employing rapid calculators. It is more accurate, because the liability to error is eliminated by comparison.

2. Figuring the Charge for Lumber Cut in Circles

Where spool heads of various diameters are cut from the same lumber, to ascertain the quantity of lumber to be charged against each particular size of spool heads, proceed as follows:

Known Quantities:

The quantity of finished spool heads of the FIRST DIAMETER is A.
 The quantity of finished spool heads of the SECOND DIAMETER is B.
 The quantity of finished spool heads of the THIRD DIAMETER is C.
 The whole quantity of lumber used to make all the spool heads is D.

Unknown Quantities:

The amount of lumber to be charged against spool heads of:
 The first diameter is..... E.
 The second diameter is..... F.
 The third diameter is..... G.

Hypothesis:

A \times (Constant of the first diameter) is..... H.
 B \times (Constant of the second diameter) is..... I.
 C \times (Constant of the third diameter) is..... K.
 The sum of H, I and K is..... L.

$$\frac{H}{L} \times D \text{ equals } E.$$

$$\frac{I}{L} \times D \text{ equals } F.$$

$$\frac{K}{L} \times D \text{ equals } G.$$

The sum of E, F and G is the equivalent of D.

Diameter:	Constant:	Diameter:	Constant:	Diameter:	Constant:
2 inches	.02 11	5/8 inches	.15 76	8/4 inches	.41 76
2/8 "	.02 46	5/2 "	.16 49	8/8 "	.42 82
2/4 "	.02 76	5/8 "	.17 26	9 "	.44 87
2/8 "	.03 08	5/4 "	.11 09	9/8 "	.45 41
2/2 "	.03 41	5/8 "	.18 84	9/4 "	.46 66
2/8 "	.03 76	6 "	.19 64	9/8 "	.47 94
2/4 "	.04 13	6/8 "	.20 46	9/2 "	.49 22
2/8 "	.04 51	6/4 "	.21 31	9/8 "	.50 53
3 "	.04 91	6/8 "	.22 17	9/4 "	.51 84
3/8 "	.05 33	6/2 "	.23 03	9/8 "	.52 49
3/4 "	.05 74	6/8 "	.23 94	10 "	.54 54
3/8 "	.06 21	6/4 "	.24 85	10/8 "	.55 91
3/2 "	.06 68	6/8 "	.25 78	10/4 "	.57 30
3/8 "	.07 16	7 "	.26 73	10/8 "	.58 71
3/4 "	.07 67	7/8 "	.27 68	10/2 "	.60 13
3/8 "	.08 19	7/4 "	.28 67	10/8 "	.61 57
4 "	.08 73	7/8 "	.29 66	10/4 "	.63 04
4/8 "	.08 29	7/2 "	.30 68	10/8 "	.64 50
4/4 "	.09 85	7/8 "	.31 60	11 "	.66
4/8 "	.10 44	7/4 "	.32 76	11/8 "	.67 51
4/2 "	.11 05	7/8 "	.33 72	11/4 "	.69 03
4/8 "	.11 66	8 "	.35 60	11/8 "	.70 58
4/4 "	.12 31	8/8 "	.35	11/2 "	.72 13
4/8 "	.12 94	8/4 "	.37 12	11/8 "	.73 71
5 "	.13 63	8/8 "	.36 26	11/4 "	.75 30
5/8 "	.14 33	8/2 "	.39 41	11/8 "	.76 92
5/4 "	.15 03	8/8 "	.40 58	12 "	.78 54

3. Figuring Square Stock

The following plan was devised to obviate the necessity of figuring each piece or lot of pieces.

A book is made up with a page for each length of square stock 2 feet, 2½ feet, 3 feet, 3½ feet, 4 feet, 4½ feet, 5 feet, etc.

Length 24" (2 feet)

Size.	100 pieces.	At \$26.50 per M.	At \$32.00 per M.
$\frac{1}{2} \times \frac{1}{2}$	4.1663 feet	.110416	.133333
$\frac{5}{8} \times \frac{5}{8}$	6.5104 "	.172526	.208333
$\frac{3}{4} \times \frac{3}{4}$	9.3750 "	.248437	.300000
$\frac{7}{8} \times \frac{7}{8}$	12.7604 "	.338151	.408333
1 × 1	16.6666 "	.441666	.533333
$1\frac{1}{8} \times 1\frac{1}{8}$	21.0937 "	.558984	.675000
$1\frac{1}{4} \times 1\frac{1}{4}$	26.0416 "	.690104	.833333

By figuring each size of square stock used in this manner, the cost clerk is enabled to price the square stock in rapid-fire time.

VI. COMPUTING COSTS WHERE NO SYSTEM HAS BEEN OPERATED

First examine the books and make a condensed statement of profit and loss. (See Report Forms Nos. 1 to 9.) This is to be used as a basis of figuring the costs.

Next study the conditions and determine the amount of the labor cost, and the material cost. If it cannot be figure in detail, take averages. Every factory keeps record of production; study these and the pay roll.

The most practical way of learning would be to accompany an auditor; therefore the author will endeavor to describe the work so that you can follow the plan and operations in your mind.

The report in the case cited was subjected to harsh criticism; but the engineers and accountants engaged in the business were obliged to admit the accuracy of the report after it had been examined minutely.

The author was engaged to make an examination of a typewriter factory to determine whether the money advanced had been absorbed by the business, and incidentally to prepare a statement of the cost of manufacturing the machines.

Visiting the factory, he proceeded to make an audit of the cash as outlined previously.

Next he prepared a condensed statement of the profit and loss as shown on Report Forms Nos. 2 to 9.

He next visited the factory to study the conditions. The manufacturing proved to consist of two divisions: (1) making the parts, and (2) assembling the machines.

An examination of the department records revealed a record of the parts made and the machines assembled.

This being determined, the pay roll was analyzed for the period

according to the following divisions of labor: (1) making the parts, (2) assembling the machines, and (3) general labor.

The general labor was prorated over the other divisions and cost of parts and cost of assembling machines was computed by weeks.

It was learned that the results obtained during the last five weeks were more satisfactory than the previous weeks.

The superintendent explained that this was because the plant was new and the organization was not complete until recently.

This being the case, it was not deemed expedient to base the costs on the average figures, but show the costs according to the best results obtained.

Notwithstanding this, the averages were embodied in the report, but not considered when figuring the costs.

A careful study of the conditions convinced him that the only practical means of figuring the cost of making parts was to base the cost on the average number of parts made without considering individual parts.

An examination of the stock of parts on hand revealed an average quantity of each part which was sufficient evidence that the average quantity of each had been made.

A summary was made of the number of parts made each week, and the pay roll of each week, for making parts, was set opposite the quantity made, and the cost extended. An average was shown for all the weeks and an average for the last five weeks. The latter was used as the basis of computing the cost of making parts under the most favorable conditions which had existed.

Next a record was made of the quantity of machines assembled each week, the average for all weeks, and the average for the last five weeks. The latter was used as the basis of computing the cost under the most favorable conditions which had existed.

The foreman stated that he could easily double the output without any additional help, if the parts were delivered to him, and to support his statements he called attention to the records which verified his claim.

The quantities assembled each week being determined, the pay roll of each week was set opposite the quantity for the week, and the cost of assembling machines for each week was extended.

The conditions of the recent weeks being more favorable, the costs were figured on the basis of those weeks and the expenses divided according to weeks.

This method of dividing the expenses according to the fifty-two weeks in the year is seldom adopted by the author; but the case seemed to warrant such a procedure. In a new plant there is always a limited production until the organization is affected.

The following is the method adopted to show the present results, the possible results, and the best that could be anticipated under most favorable conditions.

Estimate of Cost of Manufacturing Typewriters:

	BASED ON PRODUCTION.		
	Present, 60 Machines.	Possible, 80 Machines.	Anticipated, 100 Machines.
<i>Labor Cost of Making Parts:</i>	11.96	11.96	11.96
Based on Pay Roll for five weeks ending November 2, 1901.....\$4,843.06			
Parts delivered to the assembling department averaged 81 machines per week. $\$4,843.06 \div (5 \times 81) =$ per machine..... \$11.96			
This cost might be reduced by putting in more machinery to obviate the necessity of making changes, setting up machines. Extra machinery would cost about .....\$20,000.00			
<i>Labor Cost of Assembling Machines:</i>			
Based on Pay Roll for five weeks ending November 2, 1901.....\$5,634.77			
Department produced 219 machines. $\$5,634.77 \div 219 =$ per machine.....	25.73		
Foreman claims he could assemble 100 machines with the same help under more favorable conditions.			
If he assembled 100 machines.....			11.27
If he assembled 80 machines.....		14.08	
<i>Carried forward.....</i>	37 69	26.04	23.23

	BASED ON PRODUCTION.		
	Present, 60 Machines.	Possible, 80 Machines.	Anticipated, 100 Machines.
<i>Carried forward</i>	37.69	26.04	23.23
<i>Nonproductive Labor:</i>			
Based on average of five weeks ending November 2, 1901.....\$240.00	4.00	3.00	2.40
<i>Material Cost: (Estimated)</i>			
Based on cost for the year ending November 2, 1901.....	5.00	5.00	5.00
<i>Expense Cost: Supplies, Superintendent, etc.</i>			
Based on charges for year ending November 2, 1901.....	11 46	8.59	6.87
<i>Manufacturing Cost:</i>			
Exclusive of depreciation, interest on capital, etc., per machine.....	58.15	42.63	37.50
<i>Depreciation on Machinery and Equipment:</i>			
10% on \$78,000.....	2.50	1.87	1.88
10% on \$98,000.....			
<i>Interest on Investment:</i>			
\$300,000.00 @ 4%.....	3.84	2.88	
\$320,000.00 @ 4%.....			2.46
<i>Selling Expenses: (Average)</i>			
Based on charges for the year.....	33.00	33.00	33.00
Cost of manufacturing and selling.....	97.49	80.38	74.84
Machines sell for \$100 less 10%.....	90.00	90.00	90.00
Loss, present conditions, per machine....	7.49		
Profit, favorable conditions, per machine..		9.62	
Profit, improved conditions, per machine..			15.16

VII. COST SYSTEMS WITH ORIGINAL WORKING INSTRUCTIONS

1. Shoe Carton Factory Cost System

It will pay you to study carefully this system, for *it keeps itself* and the costs need be figured only when desired. The costs are always there and, if the cost of any particular lot is desired, it can be had on short notice. (Actual experience.)

No factory records were required for the cost system, which had not been in operation in some form before the system was inaugurated.

Work orders (Form 4) are issued for all construction work, repairs, etc., and the costs are always existent although not figured.

The factory order (Form 8) is issued and the superintendent's clerk issues a combining order (Form 5).

The combining machines are adjusted and the weights of the rolls of paper are noted on the back of Form 10, as the paper is put in the machine.

When completed, the material charge slip (Form 10) is executed, and the quantity of paste used (estimated) is also entered on it.

The combined paper, now box board, goes upstairs to the carton department and the cartons are made under Form 8.

The registers on the machines give the count, which is entered on Form 8, for both rotary and gluing machines.

If stock combined box board is used, it is charged on Form 8.

The wrapper order is issued to the wrapper man for the preparation of the wrappers, and the printing order, when printing is required. The wrapper man and printer charge, on the slip issued to them, all supplies required for the order, and these slips return to the factory office when completed.

When the orders are completed, the forms are dated with a stamp

and are returned to the cost department and filed in the envelopes (Form No. 7).

The pay roll is charged from Forms 1 and 1 a.

Every employee working on an order, makes a separate Slip Form 1 a for each order. He returns time slips for ten hours each day and, if any part of the work was nonproductive, he makes returns on Form No. 1.

The factory records of pay roll are made from these slips, and then the slips are dated with a stamp and sent to the cost department, where the slips are filed in the Envelopes Form 7.

Operating the Cost System

If the system is operated and figured daily, the slips and charges for material, etc., are received daily; they are figured and listed on an adding machine, and the total added to the control sheet of the cost system.

The forms are then charged to the Envelope Form 7 and, after the charge is made, the form is slipped in the envelope.

All forms for charges, orders, and memorandums relating to the order, are put in the Envelope Form 7 and preserved.

Pay Roll

The pay roll slips are analyzed weekly, according to the order numbers and each week should have a number. To analyze, simply sort the slips according to orders. The number of the week should be stamped on the slips and the summary of the analysis should be entered in the journal for charges to cost sheets (any kind of journal); the total should be added and the nonproductive labor prorated over the productive items to be charged to order numbers.

The charges for labor should then be made to the Envelope Form 7 and the slips put in the envelopes.

Making Weekly Closing

After all charges have been made for the week, the envelopes are figured and a list made of the amounts on the adding machine. The total is verified by the control sheet.

When the charges for the week have all been made to Form 7, the completed orders are sorted out and figured.

A percentage (shown by the general office books) is added to the completed orders for department and general expenses.

The completed orders (cost sheets) are then listed and the total is deducted from the control sheet for the cost system.

The envelopes of the completed orders are then filed permanently for future reference.

The results of the cost system are entered on the general books by making journal entries for the results shown on the control sheet for the cost system, as described heretofore.

If the Cost System is to Keep Itself

The records are all prepared and filed away in the envelopes just the same, except the figuring is not done.

This requires only about an hour of a girl's time each day and can be done at any time.

The nonproductive labor being a percentage charge based on an average of the past experience, it should be changed if the conditions change.

A record should be kept, showing the percentages to be charged by months, in form convenient for reference.

A record should also be kept of the percentage of nonproductive labor, by months, in form convenient for reference.

At any future time, the cost of any order can be determined accurately by taking out the envelope for the order and figuring the slips contained in the envelope, adding the percentage charges shown for the period in the record of percentages.

Working Instructions

PRINCIPLE

The principle of this cost system is:

- (1) Obtain proper basic items of cost; (these are the direct charges for labor and material);
- (2) Add a percentage to the labor for nonproductive labor;

- (3) Charge computed rates for all supplementary items of cost, such as paste, glue, etc.; and
- (4) Increase the whole by a percentage (based on the previous year's business) for fixed charges, office and factory expenses.

OPERATION

In the operation of the cost system there are virtually two systems:

First System: Computes the cost of combining box board.

Second System: Computes the cost of cutting, folding, gluing, finishing and packing the shoe cartons.

The Computing of Costs May Be Discontinued

After competent rates have been compiled for charging the supplementary items of cost, if it is not desirable to compute the cost of each and every order, the forms may be sorted and placed in the assembling envelope (Form 7), and only such orders computed as may be deemed necessary or desirable.

This does not mean a discontinuance of the system, as the cost of any order may be computed at any time.

But whenever conditions change, which affect the supplementary charges, *new rates must be computed*. This applies to both labor and material.

Form 1. Time Slip for Nonproductive Labor

When an employee is engaged on work *which is not to be charged to an order*, he should make a record of his time on this Form 1.

Enter on the form:

- (1) Time Clock Number,
- (2) Enter in the column headed "*work done*" a description of the work engaging his time, and
- (3) Enter in the column headed "*hours*" the number of hours he was engaged on the work.

The date will be entered *by the clerk in the factory office* who will stamp the date on all time slips and verify them before sending them to the office.

This form is used to compute a basis of percentage to be added to productive labor, to provide for the cost of nonproductive labor.

Form 2. Time Slip for Productive Labor

When an employee is doing work *which is to be charged to an order*, he should make a record of the time on Form 1 a.

The employee *must enter* on this form:

- (1) The Employee's Time Clock number.
- (2) The number of the order engaging his time.
- (3) The number of hours to be charged.

The employee *may enter* on this form:

- (4) The time he commenced.
- (5) The time he finished.

The employee should make notes relating to the labor in the place provided for remarks.

The date will be entered *by the clerk in the factory office*, who will stamp the date on all time slips when he verifies them before sending them to the cost department.

This form is used to compute the proper charge to be made for productive labor, and all labor, which can be charged directly to an order, should be charged against the order, no matter how the employee is engaged.

This charge is the basic cost of labor.

Form 3. Received Registry Sheet

This form should be used in making a record of the material received. The register number of the goods will be the number of the sheet and forever after *that number must be used to identify the goods*.

The object of this form is:

- (1) To provide the cost department with a means of obtaining the prices of the material purchased.
- (2) To make a record of goods received.
- (3) To provide a memorandum of the stock for the factory office.

Form 4. Work Order

A work order should be issued for all work to be done in the factory not provided for by the shoe carton order and the com-

binning order, excepting nonproductive labor in connection with the making of shoe cartons.

Work orders should be issued weekly for:

- (1) Making of paste.
- (2) Mixing of glue.
- (3) Printing materials.

Work orders should be issued for remodeling or rebuilding machinery or buildings, and all work, where it is desirable to ascertain the cost. Each work order will be issued in triplicate, similar to Form 5.

Mixing of Glue

A work order, Form 4, should be issued weekly for the mixing of glue and all materials used, and work done in connection with them should be charged to that work order.

The object of this is to obtain a basis of rates which can be used in making charges for the glue.

Making of Paste

A work order, Form 4, should be issued weekly for the making of paste, and all materials used and work done in connection with it should be charged to the work order number.

The object of this is to establish a basis of rates which can be used in making charges for paste.

Form 5. Combining Order

The factory office will issue combining orders on this form for all combining to be done and each order will be issued in triplicate:

- (1) Original: Cost department copy.

This copy should be sent to the cost department as soon as convenient after issue.

- (2) Duplicate: Factory copy.

This copy should be delivered to the foreman in charge of the combining.

- (3) Triplicate: Factory office copy.

This copy should remain bound in the book for reference.

When the work is completed the order should be returned to the factory office and by them delivered to the cost department.

Form 7. Envelope for Assembling Charges

Time slips (Forms 1 and 1 a) should be delivered to the cost department daily after the rates have been entered on them and, after the extensions have been made, the items should be entered on the envelope and the charge slips placed in the envelope for future reference.

Charge slips (Forms 8, 9 and 10) for material should be delivered to the cost department as soon as the factory offices have made their stock records, and, after the extensions have been made, the items should be entered on the envelope and the charge slips placed in the envelope for future reference.

Form 8. Shoe Carton Order

This order should be issued by the factory office and, at the time it is issued, a memorandum should be made of the combining order number issued in connection with it or the combining order number of combined stock to be issued.

The printing order should be used when printing is to be done on the order and the wrapper order should be used by the wrapper man to make proper charge for his work and material.

Form 9. Charge Order Number

Where material is required for an order and where material is used on an order other than the following:

- Paper charged on Form 10.
- Wrapper charged on Form 8.
- Paste charged on Form 8.
- Printing materials charged on Form 8.
- Glue charged on Form 8.
- Paste charged on Form 10.

Charge should be made for it on this Form 9.

This is a basic cost for material.

Form 10. Material used on Combining Order

When the materials are assembled, preparatory to operating the combining machine, note on this form:

- (1) The date the form is executed,
- (2) The combining order number,
- (3) The register number of the rolls of paper,
- (4) The original weights,
- (5) The work order number of the paste used, and
- (6) When the combining is completed, enter the weights of the paper *not used*.

This form is used to make the charge against the combining order for the paper required to complete the order.

This is a basic cost for material.

2. Cotton Mill Cost System

The following system was put in operation in a large combination of mills and the system was kept by one man. No new forms were required for use in the mills, because the regular records were sufficient.

The system is closed quarterly and shows the results in detail of about one hundred and fifty different kinds of yarn and about fifty kinds of cloth.

Opening the Cotton

A record of the bales of cotton opened is kept, so that the quantity of each kind used is known.

Waste Produced

A record of waste is kept, so that the quantity of each kind of waste and its disposition is known.

Cotton and Waste Sheet (quarterly)

A sheet is made for the cotton and waste; the sheet is charged with the inventories at the beginning, with all cotton reported opened as per opening record and waste consumed. From the total is deducted the inventory of cotton and waste at the end of the period and the allowances for waste produced. The net results should be the cotton of each character used.

From the net quantities of cotton used, deduct the production of

yarn, and the balance will be the loss of cotton in operation of the spinning.

The price of cotton to be used is the cost obtained by dividing the total cost of each (after all allowances for waste, etc.) by the pounds of yarn produced from each kind of cotton.

The price of the cotton distributed over the yarn production sheet at a per pound rate should equal the total value of cotton used, according to the condensed statement of profit and loss for the quarter.

Quarterly Statement

To obviate the necessity of closing the books quarterly, a statement is made, on which are provided columns for the trial balances for the beginning and end of the period, and the difference on each account. The differences, with the inventories should give the results for the quarter.

Expenses

The expenses are prorated over the departments, by making a summary of the departments (Form No. 11) for the quarter and distributing the expenses for the quarter over the departments.

Labor

From the opening to the roving, not including roving and excepting combing, when it is combed, the cost is kept weekly according to the total pay roll chargeable to this and the quantity produced by the department.

Roving

The roving is made up weekly on a sheet which has a column for each of the following:

Hank Number.
Number of Hanks.
Pounds.
Wages.
Nonproductive (Wages).
Total.
Average.

Each week this sheet is compiled from the department reports for making up the pay rolls.

The results of each week are posted to the cost book (ledger) which has an account for each hank number. The account is printed with headings like the weekly sheet and shows the results of each hank number for each week, and the total for the quarter is the result used in computing the cost of roving.

The cost of roving is based on the actual production of yarn, a summary being made of the yarn produced by charging the production of each yarn to the various rovings for that yarn.

Frame and Mule Spinning

A sheet is made up weekly for each class of spinning, and shows the result of the week's work. The columns of the sheet are headed as follows:

Yarn Number.
Spindles Run.
Pounds of Yarn.
Wages.
Nonproductive (Wages).
Total.
Average.

Each week this sheet is made up from the department reports for pay rolls.

The results for the week are posted from the weekly sheet to the cost book (ledger), which has an account for each and every yarn number. Each account shows the same records as the weekly sheet, the weeks being posted successively and the total being made for the quarter. These totals for the quarter are taken off on an analysis sheet and are the results used in computing the cost of yarn.

Quarterly Closing, Making Yarn

The results for the quarter of each style of spinning are made up on an analysis sheet with about twenty columns.

The sizes of yarn are entered on the sheet and the quantity of each produced. The yarns are classified according to the style of

cotton used and the purpose of the yarn. The cost of cotton is distributed over the yarn sheets, so that the net cost of cotton used will be equal to the total charges for cotton on the spinning sheets.

The cost of opening to drawing is charged at a per pound rate, so that the total amount will equal the labor cost of those departments. The expense charge for those departments is prorated over the labor cost of opening to drawing.

The roving and roving expenses in the next columns are charged from the roving summary, each yarn being charged with the cost of roving, so that the total equals the roving sheets.

The actual roving each size hank roving shown by the roving sheets will exceed the yarn produced by the waste in roving. Taking the summary of roving made with the pounds of yarn charged to each roving for the yarn, and dividing that number of pounds into the wages of each roving, gives the actual cost of each roving.

After distributing the cost of roving, the spinning labor and expenses are added.

The total is the cost of making each yarn.

The yarns are then separated, the hosiery yarn kept by itself and the cloth yarns charged to manufacturing cloth.

Final Summary of Yarn

The cost of making the hosiery yarn is summarized on a sheet with the following special columns:

Spindles:

Run.

Average per spindle.

Yarn:

Numbers.

Style.

Made on.

Pounds spun.

Based on Cotton:

Class.

Average per pound.

Cost of Cotton (*per pound produced*):

Amount.

Average per pound.

Expense Cost (*per pound produced*):

Amount.

Average per pound.

Labor Cost (*per pound produced*):

Amount.

Average per pound.

Total Cost (*per pound produced*):

Amount.

Average per pound.

The results shown on the spinning sheets are summarized on the final summary and the averages shown.

This summary is the basis upon which costs of the many ways of finishing the yarn are computed.

Cost of each hosiery yarn is figured on Form No. 36.

Quarterly Closing, Making Cloth

Weekly Sheet for Weaving

The weaving is made up weekly from the cloth reports and the labor analyzed according to the cloth and loom.

The weekly sheet for weaving has columns for the following:

Width of Cloth.

Cuts.

Yards.

Pounds.

Wages.

Nonproductive.

Total.

Average.

Final Summary

The results of the weekly sheets are posted to the cost book (ledger), which has an account for each size and style of cloth. The columns of the ledger accounts have the same headings as the weekly

sheet, and, at the end of the quarter, the production is taken off the ledger on a summary sheet which has the following columns:

Cloth:

Number.

Style.

Yards.

Pounds.

Cost of Warp:

Pounds.

Amount.

Average per pound.

Cost of Filling:

Pounds.

Amount.

Average per pound.

Weaving:

Labor.

Average per pound.

Expense.

Average per pound.

Cost of Cloth:

Amount.

Average per pound.

Average per yard.

Yards per pound.

The cost of each style and width of cloth is figured on Form No. 35.

Working Instructions

To facilitate matters and compile the results so that they can be easily comprehended, the system will be subdivided into the following departments:

- (1) *Manufacturing Yarn.*
- (2) *Manufacturing Cloth.*
- (3) *Finishing Cloth.*
- (4) *Finishing Yarn.*
- (5) *Making Sheets and Pillow Cases.*

The cotton and waste will be opened and put in process. After the spinning, the cost of manufacturing yarn will be determined, and the proportion of the cost chargeable to hosiery yarn will be set aside, but the proportion chargeable to cloth will be charged against the department of manufacturing cloth. The cost of all labor and expense in connection with the actual making of the cloth will be charged against the department of manufacturing cloth, and the total result, which will be distributed and shown according to each width (*standard*) and style of cloth, will be the cost of manufacturing the cloth, and the final result will be the production and cost of each size and style of cloth.

Finishing cloth will not be a department of manufacture, but simply an account on the general ledger, to which will be charged all bills for finishing brown, and bleaching and finishing.

Finishing yarn will be a department of manufacture, and will comprise all costs for operations and supplies on the hosiery yarn after the spinning.

The *prime costs* will be:

- I. COST OF MAKING CLOTH, and
- II. COST OF MAKING HOSEYRY YARN.

I. *After the cost of making cloth has been determined*, the cost of finishing brown or bleaching and finishing will be added to show the cost of each style and size.

II. *After the cost of making yarn has been determined*, the cost of special dyeing, combing, cones, etc., will be added to show the cost of each style, and size of yarn prepared as desired.

The making of sheets and pillow cases will not be a department of manufacture, but simply an account on the general ledger, to which account will be charged all expenses and material in connection with the manufacture of them.

Each system will be complete in itself, and the items classified thus:

- (a) *Labor Cost.*
- (b) *Material Cost.*
- (c) *Expense Cost.*

The expense cost will not include cost of selling, which will be treated as a supplementary cost to be considered only as desired, the

object being to determine the cost of manufacturing and show the cost of selling as an after consideration.

(a) Labor Cost

The labor cost will take the weekly pay roll and analyze it according to the departments, separating these so that the amount of labor at large (which is not chargeable directly to manufacturing departments) can be ascertained and distributed among the manufacturing departments, by prorating it according to the amount of wages chargeable to each manufacturing department.

These figures should be so compiled, that the proportion of non-productive labor at large will be so recorded that comparisons can be made of same from week to week.

The labor chargeable directly to each department is then analyzed, in order to determine the amount of productive labor (labor chargeable directly to cost of manufacture) and the amount of nonproductive labor in the department.

After ascertaining the amount of nonproductive labor in the department, the total of the nonproductive labor in the department and the proportion of the nonproductive labor at large, which is chargeable to the department, are distributed among the various items of productive labor by prorating them according to the amount of each, which result will be the labor cost, and the final total of the labor cost for the week must agree with the pay roll.

The pay roll will be classified as follows:

<i>Manufacturing Yarn</i>	{	Opening, Picking and Carding.
		Combing.
		Roving.
		Frame Spinning.
<i>Manufacturing Cloth</i>	{	Mule Spinning.
		Spooling, Warping and Slashing.
		Weaving, etc.
		Cloth Room.
<i>Supplementary</i>	{	Cone Winding.
		Twisting.
		Dyeing.
		Knitting.

After the pay roll has been analyzed according to departments, and the nonproductive labor distributed, the totals of the wages chargeable to the departments must equal the total pay roll for the week.

- ROVING

Total labor chargeable to the roving department is compiled as follows:

Analyze the pay roll of the roving department, in order to determine the amount of labor chargeable directly to each hank number. Make a summary schedule of this, and then distribute the total amount of nonproductive labor over the schedule by prorating it according to the amount of wages chargeable against each hank number, so that the total of the revised schedule will equal the total pay roll for that department.

SPINNING

The total labor chargeable to the mule spinning is compiled as follows:

Make an analysis of the pay roll of the mule spinning to determine the amount of wages chargeable to each yarn. A schedule of this analysis is then made, and the total of the nonproductive labor of all kinds chargeable to the department is distributed over the schedule by prorating it according to the amount chargeable to each yarn. The total of the productive and nonproductive labor chargeable to each yarn will be the total labor cost of each yarn.

The same method applies also to frame spinning.

WEAVING

The labor chargeable to the weaving department is compiled as follows:

Make an analysis of the labor chargeable to weaving, for every operation associated therewith, to determine the amount of labor on each cloth according to its style and width (*standard*). A summary of this analysis is then made, and the total nonproductive labor of all kinds chargeable to the weaving department is distributed over the summary by prorating it according to the amount of productive wages chargeable to each style and width of cloth. The total of the pro-

ductive and nonproductive labor chargeable to each cloth will be the total labor cost of the cloth, and the total of the completed schedule will equal the total of the productive and nonproductive labor chargeable to the department.

ROVING

The pay roll of the roving department must be prepared according to the hank roving.

MULE SPINNING. FRAME SPINNING

The results would be more satisfactory if the actual weights were reported. The weight of each yarn spun and the wages for spinning each yarn must be reported, so that the labor cost of each class of yarn can be computed.

COMBING

The labor paid for combing must be shown separately. The pounds combed and the pounds of the combings must be made a matter of definite record.

WEAVING, ETC.

The pay roll for weavers and all operations associated with them should be reported as performed on the size (standard) of the cloth instead of the size of the loom.

SPARE WEAVERS

Wages should be charged against size of cloth according to the items reported opposite regular weavers' names on the pay roll sheets, which items should equal the wages of the spare weavers.

YARN SUPPLEMENTARY WAGES

After the yarn has been manufactured, all supplementary wages must be separated, that is, the pay rolls for

Winding,
Spooling (Hosiery yarn only),
Twisting,
Rewinding.

YARN SUPPLIES

All supplies, cops, etc., for hosiery yarn must be separated on the general books and carried in a separate account.

No. 3 YARN (made from waste)

Should be separated all through in all processes, and in every way possible.

SPOOLING

The pay roll for spooling must be so prepared that it is possible to discriminate between spooling cloth yarns and spooling hosiery yarns.

The labor cost will be computed and compiled weekly, but the material and expense costs will only be compiled quarterly.

(b) Material Cost

The cotton and waste will be charged against manufacturing yarn, and after spinning the yarn, the cost of making yarn will be the first material cost chargeable to manufacturing cloth, and dressing supplies of all kinds will be added to the cost of yarn in the department of manufacturing cloth.

The yarn purchased for warp and filling must be so recorded, that its weight and value, raw and dressed, will be known.

The yarn sold, warp and filling, must be so recorded, that its weight and value, raw and dressed, will be known.

All supplies of starch, etc., used in dressing will be charged to a "Dressing Supplies Account" on the general ledger, and the quantity used must be reported weekly.

(c) Expense Cost

The expense will be divided as follows:

- (1) *Administration Expense.*
- (2) *General Mill Expense.*
- (3) *Department Expense.*

(1) The administration expense will comprise all expenses which are chargeable against all mills, and cannot be charged directly to any particular mill, except selling expenses.

(2) The general mill expense will comprise all expenses chargeable to a particular mill, but not against any particular department.

(3) The department expense will comprise all expenses chargeable directly to departments.

The expense cost will be distributed as follows:

The administration expense will be distributed among the various mills on a basis of production.

The general mill expense will be added to the proportion of administration expense chargeable to the mill and distributed among the various departments on a basis of labor cost.

The department expense will be added to the proportion of administration and general mill expense chargeable to the department and distributed among the various items of labor cost, prorating it according to the amount of the labor cost.

When taking the inventory at the beginning it will be necessary to show in each department of manufacture the composition of the inventory; namely, the amount computed for cotton, waste, labor and expense, the basis of the charge for cotton to be the inventory weights; the basis of the charge for labor to be the two prior pay rolls; and the basis of the charge for expense to be the expenses of the prior period.

3. Cost System for a Drug Compounding Laboratory and Factory

General Outline of Routine

The work of compounding in the laboratory is done in secret, the drugs are known to the cost clerk by numbers only, and the quantity of each required for each and every machine is computed so that the cost clerk simply changed a price when the pharmacist notifies her that the price has changed.

Required for Machine No. 10

Drug No. 1.	1 oz.	at.....	\$1.75	\$1.75
" "	2. 1 quart	" .....	.40	.40
" "	3. 50 gallons	"	1.60	80.00
" "	4. 100 "	" .....	.07	7.00
" "	5. 3 grains	"	2.75	8.25
Cost of Drugs required for No. 10 Machine.....				<u>\$97.40</u>

These are arranged in an indexed book which keeps a record of all prices.

The pharmacist prepares the compound. If he operates three machines in concert, he simply crosses off the numbers of the machines on the envelope (Form No. 12); when the compound is ready, it is run in a tank and the number of the tank put on the envelope (Form No. 12). At this time the pharmacist also makes a tag (Form No. 14); the number of this tag corresponds with the number of the envelope (Form No. 12). On the tag is noted the date, compound, gallons and tank number, and the tag is hung up on the tank. This obviates the necessity of keeping a record of the drugs in the tanks, and saves labor, annoyance and possibly ruin of drugs, by bottling before the medicine has matured.

When the foreman of the bottling department wants to bottle a given medicine, he and the pharmacist simply refer to the tags on the tanks. If a tank has the required quantity of a given medicine, they can tell at a glance whether it has matured and connect it with the machines. The foreman of the bottling department takes the tag down and hangs it at the machines doing the bottling.

To obviate the necessity of counting the bottles, trays have been made to hold two dozen bottles each. The tables and trucks are marked so that the number of trays indicate the quantity by the space occupied on the table.

After bottling, the workman marks the number of bottles, register number (on the outside of the case from which the bottles are taken) and quantity of bottles used and broken on the portion of the tag (Form 14) for that purpose. The tag is torn off and sent to the stock clerk, who marks off the quantity of bottles on the stock card (Form No. 6); the tag is then returned to the cost clerk, who makes a charge to the cost sheet (Form No. 13).

After making the charge to the cost sheet, the portion of the tag which was returned by the bottling department is filed in the envelope (Form No. 12).

The tag and bottles of medicine are then passed on by the bottler to the corking department, each department operating independently and sending in records which check each other.

The tags are all filed in the envelope until the cost sheet is completed. The cost sheets show the progress of the work in all departments.

The pay roll is analyzed weekly according to order numbers and charges for labor are made so as to show the cost of each operation.

When completed, the sheet is figured and, as the medicine is delivered, the delivery is recorded on the cost sheet. The number of the emulsion is stamped on the bottle and carton.

This system is kept by a stenographer in addition to doing her regular work and giving accurate costs.

Working Instructions

In devising the cost system, there are three things considered:

First, Material.

Second, Labor.

Third, Expense.

Material. (Received)

When the material is received in the receiving department, the goods are entered in a receiving book and registered consecutively, as hereinafter described. This register number is a mark of identity which follows the goods all through the factory and is entered on the invoice for them at the time it is approved by the receiving clerk; wherever hereinafter the words "Register Number" are used, they refer to said number.

EMULSIONS

The compounding of drugs is divided into emulsions. If one machine is operated independently of the other machines and the product of that machine run into a tank separately, that is one emulsion. If two or three machines are operated collectively and the product of those machines run into one tank, that is one emulsion. Each emulsion is given a number and the chemist in charge of the laboratory has an envelope (Form. No. 12), and a tag (Form No. 14) for each emulsion. These tags and envelopes are numbered consecutively and for each set consisting of one tag and one envelope, there is down in the office in the possession of the cost clerk, a cost sheet (Form No. 13), with a number corresponding to the number on the tag and envelope which is in the laboratory.

MATERIAL CONSUMED: DRUGS

After the emulsion has been compounded, the chemist fills out the envelope (Form No. 13) and the tag (Form No. 14), which are to represent that particular emulsion. The envelope is sent to the office, but the tag is retained in the laboratory and serves as a ready reference record of the contents of that particular tank until the foreman of the bottling department desires to commence bottling out of that tank. At that time the foreman of the bottling department will confer with the chemist in the laboratory, receive from the chemist said tag (Form No. 14), and both the foreman of the bottling department and the chemist will see that the proper tank is connected with the proper bottling machines.

MATERIAL CONSUMED: SUNDRIES

The foreman of the bottling department will take this tag to his department and, after the emulsion has been bottled, the register number and quantity of bottles used and broken in bottling this particular emulsion, will be entered on the tag in the places provided for them and the tag will be passed along with the emulsion to the corking department where it is corked. After the emulsion has been corked, the register number and quantity of corks used and destroyed will be entered on the tag in the places provided for them and the tag passed along with the emulsion to the labeling department. After the emulsion has been labeled, the quantity of labels used and destroyed will be entered on the tag in the places provided for them, and the tag with the emulsion will be passed along to the casing department. After the emulsion has been cased, the register number and quantity of cartons and pamphlets used and destroyed will be entered in the places provided for them and the tag passed along with the emulsion to the packing department where the emulsion is packed and the number of packing cases used is entered on the tag in the place provided for it. Immediately after the emulsion has been packed, the foreman will take the tag and will himself count the quantity of cases and loose bottles of medicine and enter the numbers on the tag in the places provided for the finished product. When he has done this and recorded the material consumed, as hereinafter provided, he will immediately send the tag to the cost clerk.

COST CLERK. MATERIAL CONSUMED: DRUGS

When the cost clerk receives the envelope (Form No. 12), she makes the extensions of the value of the drugs on the envelope, enters them in the journal of charges to costs, and immediately posts them to the cost sheet (Form No. 13), with the emulsion number corresponding to the emulsion number on the envelope (Form No. 12). (This is a notification to the office that this emulsion has been compounded and the cost sheet keeps the office informed regarding the progress of the work on the various emulsions.)

COST CLERK. MATERIAL CONSUMED: SUNDRIES

When the different parts of the tag (Form No. 14) are received by the cost clerk, she makes the extensions of the values of the material on the tag, enters them on the journal for charges to cost sheets, and immediately posts them to the cost sheet (Form No. 13) with the emulsion number corresponding to the emulsion number on the tag. After all the material has been charged under the heading of "Cost of Material," the total is carried to the summary of costs on the cost sheet (Form No. 13).

Labor

Each and every employee in the factory must have a time card (Form No. 2) which is filled out by the foreman, or under the direction of the foreman of the department. On this time card, the time spent on each emulsion is entered opposite the number representing that particular emulsion and in the column representing the day of the week. At the end of each week, these time cards are sent to the cost clerk.

COST CLERK. LABOR

When the cost clerk receives the time cards (Form No. 2) from the various foremen, she proceeds to calculate the value of the time devoted to each particular emulsion, and after she has calculated the time devoted to each particular emulsion, the cost of labor on each emulsion is charged to the various cost sheets (Form No. 13) by taking each time card separately and posting from that time card to

the emulsion cost sheet (Form No. 13). After all the time has been charged to the cost sheets (Form No. 13) she will make a summary of the factory pay roll, and with the results shown on this summary, she will prove the amount charged to each particular cost sheet.

Expense

There are three classes of expense, viz:

General and Office Expenses,
Factory Expenses, and
Machinery Expenses.

The general and office expenses and the factory expenses are charged to the cost sheets (Form No. 13) by obtaining from the general books the actual amount of said expenses for the week and distributing them on the various cost sheets in operation during the week, considering the number of days each emulsion was in operation in the factory. An entry for this is made in the journal for charges to costs, and from there is posted to the cost sheets (Form No. 13).

The machinery expenses are charged to the cost sheets (Form No. 13) by obtaining from the general books the actual amount of said expenses for the week, including the amount provided for depreciation on machinery, and the total for that week is distributed on the various cost sheets representing emulsions which were compounded during that week, considering the number of machines in operation on the day the emulsion was compounded and the number of machines operated for each emulsion. An entry for this is made in the journal for charges to costs, and from there is posted to the cost sheets (Form No. 13).

After all the charges under the heading of "Summary of Costs," on Form No. 13, have been made, the amount column is footed and the result is the actual cost of production for that emulsion.

SHIPMENTS OF MEDICINE

When the medicine is prepared for shipment, the emulsion number of the medicine used is marked on the order and, when these orders are returned to the office, the cost clerk posts to each cost sheet (Form No. 13), the shipments of medicine.

4. Cost System for a Silk Mill

The mill in question buys the raw silk, sends it out to be thrown and dyed, and after making the goods which are a mixture of cotton and silk, sends them out again to be finished.

Filling is generally cotton, purchased in the yarn, and is also sent out to be dyed as required.

Stock cards are kept to show the location and disposition of the raw silk and cotton yarn, and, in addition, a card system is operated to trace each piece of silk goods made.

The employee's pay is made up in individual books, which are returned to the office weekly to make up the pay roll.

A warp card and number is issued for the making of the warp, and a record is kept on it of each warp.

All work is piece work, except winding, and tickets are delivered for work done. These tickets are entered in the employee's pay roll books, and the tickets are returned to the office. (Tickets, Forms 15, 16, 17 and 18.)

In the office a book is kept of the work done in each department, and all goods are traced in detail; because silk is very valuable and must be accounted for.

The warp room book has columns for warp number, lot number, yards, weight, ends, rate, warper's name, and the amount; and, as the tickets come in, they are entered immediately and filed away. Thus the warp room books show a record of the work done in the warp department and provide a permanent record of the silk and warps which make it possible to trace all silk from the purchase invoice to the finished goods.

These records are made of every department and show the production of each department.

The records verify the pay roll, because the pay roll of each department must agree with the department book, considering non-productive labor.

The winding records are kept according to the pounds, the record being kept by the weigher delivering the work to the employee.

A rate per pound, according to actual experience, is charged for winding.

The warper delivers the finished warp and receives a warp ticket (Form 15), which is entered in the pay roll book of the warper.

The twister twists the warp and receives a ticket (Form 16), which the time clerk enters in his book.

The weaver weaves the warp and, when the required number of yards is indicated, a cut is made.

This cut is given a number by placing the next tag (Form 18) on it. The tags are numbered consecutively, and the tag and cut are sent to the inspector, who measures and examines the piece, making proper entries on Form 18 and returning the weaver's ticket (Form 18 a) to the weaver, who has the ticket (Form 18 a) entered.

The weaver also puts the loom card on the piece and the inspector enters the data on the loom card (number of cut as per card, Form 18) and returns Form 18 a and the loom card to the weaver.

The inspector weighs and examines the piece. His time is non-productive and charged as part of the factory expense. This is because the time spent on individual pieces is uncertain and subject to numerous interruptions. If the inspector's time can be charged to specific pieces it should be done.

The burling department next get the piece of silk and turn in ticket (Form 18 b) for the work done.

The piece is then passed on to the sewing department and the sewing department turns in ticket (Form 18 c) for the work done.

The piece is sent to the finisher, who returns the piece with a new tag (sales tag) and also the old tag (Form 18 d).

The pay roll is made up from the employee's books and, if it fails to agree, can be easily checked with the office record of work in each department. The office record is simply a list of the tickets which come in daily and the pay roll books are the employee's records; consequently, they must agree.

The main object is to see no silk is lost, no money paid for service not actually performed, to provide actual costs, and to keep the office informed of the progress of the work.

The costs are figured on Form No. 19, which can be used to estimate a basis, by the same process as figuring actual costs.

The results of each warp can be determined by sorting the tickets, and the cost of individual pieces determined quickly, by figur-

ing the warp and adding to the proportionate cost for warp the detail tickets for the piece of silk.

5. Working Instructions for Cost System for Woolen Mill

The objects of this cost system are:

First: To provide a means of computing costs,

Second: To prove that the computations are correct, and

Third: To control the material and wages.

The *important controlling weights* are the weights mixed, the weight after spinning, the weight off loom, and the weight of finished product.

ANALYSIS OF ACCOUNTING (DIVISIONS)

Real Accounts:

Plant and Equipment.

Capital.

Cash.

Receivables and Payables.

Sales Account.

Expense and Supplies:

General Supervision of Business.

Selling Expenses.

Mill Expenses.

Manufacturing:

Making Shoddy.

Dyeing.

Washing and Sorting Wool.

Mixing to Finishing.

In computing costs, the departments of manufacture are divided as follows:

Prime Costs:

Taking the cleaned raw material and combining all operations from the mixing to the finishing, except dyeing, which is charged as a supplementary cost.

Supplementary Costs:

- (1) Making Shoddy.
- (2) Dyeing.
- (3) Sorting and Washing Wool.

There are three classes of charges considered in computing prime costs:

- (a) Cost of Raw Material:
 - (1) Warp.
 - (2) Filling.
- (b) Cost of Labor (to include dyeing).
- (c) Provision for Expenses:
 - (1) Mill Expenses.
 - (2) General Supervision of Business.
 - (3) Selling Expenses.

In computing the *prime cost* charge:

First: The Cost of Raw Material.

Second: The Cost of Wages (which include Supplementary Dyeing).

Third: Add to the total amount of Raw Material and Wages, a percentage (according to the previous year's business) to provide for all expenses. The result is the cost of Manufacturing and Selling.

Fourth: Increase this amount to a sum sufficient to provide for the profit desired, in order to get the selling price.

No prices should be quoted on estimated costs, as actual results should be obtained to verify all estimates before quotations are made.

Prime Costs: Manufacturing**MATERIAL**

Charge the actual (or computed) quantity of material used for warp and filling at the cost of each lot, the price computed in the make-up of lots, providing for the handling of the material and cost of wool sorting and washing, and waste. This is a basic cost, and should be the value of the material to be used.

WAGES

For *Mixing and Oiling*, use the original weight of the lots mixed, at the average cost of mixing and oiling obtained by averaging the production and wages.

For *Carding and Spinning*, use the original weight of each lot mixed, at the average cost of carding and spinning: If a new lot is put in operation, a test can be made or the actual cost can be computed by keeping the record separate in each department until a satisfactory basis has been obtained.

For *Dyeing, Stock or Yarn*: The charge made for dyeing, although included with wages, must be the cost of dyeing, which cost will include the cost of dyestuffs, expense of dyeing and dyehouse, and wages of dyers and all helpers.

If the dyeing is done before carding, the weight used in computing the cost is the original weight of the lot as mixed (unless you desire to weigh the dyed stock, in which case the weight of the dyed stock should be used in making the charge for dyeing, also for carding and spinning).

For *Twisting*, charge the actual weight delivered to the twisting department at the actual cost of twisting, as per pay roll, or a competent average rate shown by averaging the wages and production of the twisting department. (Allowing for waste.)

For *Warp Spooling*, charge the actual weight (which is obtained by weighing the warp after spinning) at either the actual wages for warp spooling or a competent average rate obtained by averaging the wages and production of the warp spooling department.

For *Warp Dressing and Drawing-in*, charge the actual yards dressed at the actual wages or at a competent average rate shown by averaging the wages and production of the warp dressing and drawing-in department.

For *Weaving*, charge the actual yardage off the loom at the rate of wages paid for weaving, adding to the rate for weaving an average amount for the expense of nonproductive labor in and in connection with the weaving department, which average amount will be obtained by averaging the yards produced and all wages paid for expense of nonproductive labor in connection with the weaving.

For *Burling and Sewing*, charge the actual yards off the loom at

a competent average rate obtained by averaging the production and the wages for the burling and sewing departments, considering the width of the goods.

For *Dyeing in the piece*, charge the actual yardage after dyeing or, if inconvenient to measure after dyeing, charge the yardage off the loom at a rate which must be computed for each class of production.

For *Finishing*, charge the finished yardage at a competent average rate obtained by averaging the finished product and the wages of the finishing department, considering the width of the product.

Expenses and Profits

The total charge for raw material and the total charge for wages, etc., are added together, and a percentage is added to the total, to provide for all mill expenses, general expenses and selling expenses. This is the whole cost and to the whole cost must be added a sufficient percentage to provide for the profit desired.

No Allowance of any kind should be made for waste where figures are taken from *actual results shown in manufacture*. Provision should be made for loss in cleaning raw material when making the prices for raw material.

The percentage to be added to the total material and wages should be determined by considering the proportion of the expenses to the production during the prior year's business.

Futures

Where costs are computed on goods to be manufactured, sufficient allowance must be made for waste, in the various operations, and before any prices are quoted, said allowance made for waste, in the various departments of manufacture, should be verified by actual weight.

Wool Sorting and Washing

The cost of wool sorting, washing and all expense necessary to produce clean stock should be separated from the manufacturing account and added to the purchase price of the wool, in order to obtain the cost of the cleaned wool which is a supplementary cost.

Rag Sorting and Picking Shoddy

The cost of rag sorting and picking shoddy, and all wages and expenses in connection with the manufacture of shoddy should be separated from the manufacturing account, in order to show the cost of manufacturing shoddy, which is a supplementary cost.

Analyzing Wages

In analyzing the wages, the various departments should be separated as follows (by simply grouping the names) :

Making Shoddy

Rag Sorting and Picking Shoddy.

Dyeing

Dyeing Raw Material or Yarn.

Dyeing in Piece.

Manufacturing

Mixing and Oiling.

Carding and Spinning.

Twisting.

Warping.

Weaving and Expense.

Burling and Sewing.

Finishing.

General Expense

Office Help.

General Help.

Plant and Equipment

New Houses.

Improvements.

Wages in Departments

In the weaving department all nonproductive wages for foremen, helpers and all persons employed in the department, excepting weavers on production weaving, are grouped on the pay roll under the heading of weaving expense.

In all other departments the wages of *every employee in the department* are included as part of the wages of the department in which they are engaged.

Under *general help* include only employees that cannot be charged against any particular department, such as yard hands, watchmen, etc., excepting such as are specially provided for.

The Proof of Wages

The amount of wages charged by the superintendent in computing costs can be verified by striking an average, considering the summary of the reports of production and wages for the departments.

And annually the summary of the production and wages reports should not exceed the production for the year when the goods in process, in each department at the beginning and end of the period, are considered.

To Prove the Wool Consumption

The total amount of wool used, as shown by summarizing the record of the mixing department book, should equal the consumption for the year, as shown by the wool account in the private ledger. Add to the inventory of wool on hand January 1st the purchases of wool for the year and from this amount deduct the inventory of wool on hand December 31st; the result thus obtained should equal the amount of wool consumed as per mixing room record. (Considering waste.)

To Prove the Consumption of Cotton

The total amount of cotton used during the year as shown by summarizing the record of the mixing room should equal the cotton consumed, as shown by the cotton account in the private ledger. (Considering waste.)

To Prove the Consumption and Manufacture of Shoddy

The inventory in pounds of shoddy on hand January 1st plus the pounds of shoddy manufactured, less the inventory in pounds on December 31st (following), should equal the shoddy consumption as shown by the summary of the record of the mixing room.

In taking account of stock in process at the end of each period, the weights and numbers of the stock in process in the following departments should be shown separately:

Carding and Spinning,
Twisting,
Warp Spooling,
Warp Dressing and Drawing-in,

and in the following departments the numbers, yards and weight should be shown in detail:

Weaving,
Burling and Sewing,
Wet and Dry Finishing,
Piece Dyeing.

Manufacturing Shoddy (*Supplementary Cost*)

The manufacture of shoddy must be kept entirely separate and treated as an independent business (except in regard to fixed charges and general expenses), in order to obtain the cost of making shoddy to compare with the cost of shoddy purchased.

(1) All *purchases* made for the shoddy department should be charged to the shoddy account during the year.

(2) All *wages* in connection with the manufacture of shoddy should be separated on the semimonthly report of production and pay roll, and charged to the shoddy account at the end of the year.

(3) A record should be kept of the shoddy manufactured.

At the beginning of the year the shoddy manufacturing account is charged with the inventory of shoddy making material.

Add to the inventory of January 1st all purchases and deduct from the total obtained, the inventory of shoddy making materials on hand December 31st; the resultant will be the material consumed in making shoddy.

The consumption of each class of material can be obtained by compiling them separately, and the total results, if correct, will equal the resultant obtained.

To the material consumed in making shoddy add the wages of the shoddy department for the year.

Divide the total by the number of pounds of shoddy produced

and the result will be the average cost of manufacturing shoddy for the year.

Dyeing (*Supplementary Cost*)

The average labor cost of dyeing either the raw material, yarn or piece goods, can be used in computing costs if desired; or

Test lots may be put in operation, in order to obtain competent rates to be charged for wages; or

Actual wages for dyeing can be charged by keeping a record of the wages.

Material: The costs of dyestuffs vary so extraordinarily that the cost and quantity of dyestuffs must be considered in computing the cost of material used in producing certain results. For this reason, when compiling the cost of dyeing, the first cost of dyeing must be obtained by computing on actual results; thus:

Dyeing:

Material (Dyestuffs consumed)	\$_____
Wages (actual or average).....	\$_____
Expenses and Supplies (average).....	\$_____

Total Cost.....	\$_____

Divide the total cost by the number of pounds and the result is the cost of dyeing per pound.

The cost of each cloth is figured on Form No. 37.

6. Outline of Cost System for Lithographing Company

The *elements of costs* will be assembled on cost sheets, and these cost sheets will be kept in two binders:

- (1) Cost Sheets in Operation.
- (2) Completed Cost Sheets.

The *cost sheets in operation* will be considered always as a unit, and a controlling account will be kept in the ledger, showing the value of the costs in operation. If the cost sheets in operation are

scheduled at any given time, the total of same should be the equivalent of the balance of the ledger account for work in process.

Each week should commence with this balance, which should be the total value (or cost) of work in process.

Charges should be made to the *cost sheets in operation* through the cost department journal, so that the cost department journal *will show the amount* which was charged to cost sheet, and an analysis of this, so that the proper accounts can be credited with the total of the items which were charged to the cost sheets.

The *cost sheets completed* during the week should be scheduled in detail on form number, classifying the cost sheets according to the *number of sheets in the bill*.

A recapitulation should be made of this classification, which should give the total amount of the cost sheets completed during the week. Deducting this total from the total of the cost sheets in operation should leave the balance, which should be the work in process.

Material

The material should be charged to the cost sheets as delivered at actual cost value, but can be charged to the cost sheets when the order is completed if it is more desirable.

Labor (also Department and General Expenses)

The pay roll should be analyzed weekly according to departments, and the factory and general expenses distributed over the departments. (Form No. 11.)

The cost sheets for the departments *operated as a whole* should be charged with the pay roll for the department, plus its relative proportion of expenses.

The pay rolls of the press rooms should be analyzed according to the *classification of presses*, and the amount chargeable to each class of presses, plus its relative proportion of expenses, should be charged to the *cost sheets for the classes of presses*.

The pay rolls of the departments *operated according to order numbers* should be made up to show the amount of productive labor chargeable to each and every order number, the proportion of the

expenses chargeable to the department should be prorated over the order numbers of that department, and the amounts charged to the individual cost sheets for the orders.

Selling Expenses

The selling expenses should be charged to the cost sheets after all other elements of cost have been determined by adding a percentage, considering the ratio of the selling expense to the whole cost.

Details of Cost System

Classification of Original Expense

The various expenses of the business will be analyzed to show primarily:

- (1) Pay Roll.
- (2) Material.
- (3) Reserve and Long Term Expenses.
- (4) Departmental Expenses.
- (5) General Factory Expenses.
- (6) General Expenses.
- (7) Selling Expenses.
- (8) Sales Office Expenses.

The prime cost is the labor, and the distribution of the factory and general expenses should be made according to the ratio they bear to the labor, considering previous experience.

Material

All material purchased should be charged to the material account. Under the heading of material should be classed all articles charged to cost sheets, such as paper, etc., which become a component part of the product. The material will be charged direct to the cost sheets immediately upon delivery from the delivery ticket, and at the actual cost of the material.

Pay Roll

The pay roll account should be charged with the entire amount of the pay roll.

Distribution of Pay Roll and Unapplied Expense. (Form 11)

The pay roll of the departments operated according to order numbers should be set up on Form No. 11, to show the amount of productive labor and unproductive labor, and the other departments should show only the total labor for the department.

Unproductive Labor

The amount of the unproductive labor in each department, operated by order numbers, should be added to the proportion of department expense, factory expense, and general expense, the ratio of the whole to the productive labor should be computed, and the productive labor plus its percentage of the expenses should be charged to each and every order number.

Departmental Expenses

This classification should include all expenses chargeable to the departments for supplies used in process of manufacture, which do not enter directly into the product as a component part of same, such as alcohol, benzine, brooms, mops, brushes, oils, etc.; also heat, light and power; building and machinery repairs; reserve for depreciation; and insurance and taxes.

Subanalysis of Departmental Expenses

A subanalysis will be made to determine the amount chargeable to all departments, and the amount chargeable to particular departments for specialties used only by certain departments.

Heat, Light and Power

The cost of heat, light and power will be based on the previous year's expenses, and distributed over the departments according to the requirements of each department, and be a part of the departmental expense.

Building and Machinery Repairs

The cost of building and machinery repairs will be based on the previous year's expenses, and distributed over the departments, the

building repairs according to floor space, and the machinery repairs according to the actual report of repairs in each department; the totals will be a part of the departmental expenses.

Reserve for Depreciation

The reserve for depreciation on plant and equipment should be based on the valuation and possible life of properties in the respective departments, and included as a part of the departmental expense.

Insurance and Taxes

The cost of insurance and taxes on plant and equipment will be based on the previous year's expense and distributed over the departments; the insurance on buildings according to floor space; the insurance on machinery, etc., according to valuation of same in the departments; and the insurance on the stock in warehouse will be charged to general expense.

General Factory Expenses

This classification should include all expenses of manufacture, common to all departments; the salary and expenses of the factory superintendent, and his office staff; the salary and expenses of the cost department; heat, light and power for elevators, etc., which cannot be applied to any department; insurance and taxes; teaming; insurance on raw material and sundry supplies not chargeable to departments; accidents, etc.

General Expenses

This classification should include all expenses of a general character, such as salaries and expenses of officers and general office staff; stock clerks; in fact, all expense incurred by the management in the supervision of the business, and also their proportion of the New York (Executive) office expenses.

Selling Expenses

Under this classification should be included all selling expenses of every character, except sales office expenses, which should be treated as follows:

Sales Office Expenses

If a sales office is maintained, a special account should be maintained for same, and all expenses incurred by the office should be charged against the account. The selling expenses will be subdivided by discriminating between booking and shipping expenses. To determine the percentage which is to be added to the cost sheets, for selling expenses, ascertain the percentage of the selling expenses to the whole cost, exclusive of selling expenses, by deducting the total selling expenses from the whole cost, and dividing the selling expenses by the resultant.

MAKING UP PAY ROLL FOR DEPARTMENTS OPERATED ACCORDING TO ORDERS

The pay roll of departments, operated according to order numbers, should be analyzed, and, after determining the amount chargeable to each and every order, prorate the expenses (including unproductive labor) over the orders, so that the total amount, being charged against orders, is the equivalent of the department's pay roll and its relative proportion of expenses as per Form 11. The charges should be made to the individual cost sheets from the analysis sheet, and the results entered in the cost journal.

MAKING UP PAY ROLL FOR PRESS ROOM

The productive labor of the press rooms should be analyzed according to class of presses, and the expenses prorated over the labor, chargeable to each and every class of presses.

The charges against classes of presses are made to the cost sheets for the different classes of presses through the cost journal.

PAY ROLL OF DEPARTMENTS OPERATED AS A WHOLE

The pay roll of the departments operated as a whole, and the relative proportion of expenses, as per Form No. 11, should be charged to the cost sheets for the departments through the cost department journal.

Preparation of Inventory

In preparing the inventory the different items should be classified as follows:

- Material.
- Department supplies.
- Factory supplies.
- General expense supplies.
- Building and machinery repair supplies.
- Heat, light and power supplies.
- Selling expense supplies.
- Reserve and long term expenses.
- Work in process.
- Finished product.
- Merchandise.

Do not confuse the different classes by putting them on the same sheet, for *no two classes of articles should appear on the same inventory sheet*, except when making a summary of the total inventory. This summary should show the total amount of each class, except department expense supplies, which should be set up to show the amount chargeable to each department.

MATERIAL

Under the heading of "Material" should be classed all articles, such as paper and ink, which become a component part of the product.

DEPARTMENT SUPPLIES

Under the heading of "Department Supplies" should be classed all articles used by departments, which can be consistently charged against the departments because they are used by the department and not an expense of all departments.

FACTORY SUPPLIES

Under the heading of "Factory Supplies" should be classed all articles which are necessary to the operation of the factory in general, which cannot be charged to particular departments.

GENERAL EXPENSE SUPPLIES

Under the heading of "General Expense Supplies" should be classed all articles of a general character not applying directly to the manufacturing, such as office supplies, etc.

BUILDING AND MACHINERY SUPPLIES

Under this heading should be classed all articles such as lumber, belting and parts of machinery which are renewals and replacements, except such as are to be used by the heat, light and power departments.

HEAT, LIGHT AND POWER SUPPLIES

Under the heading of "Heat, Light and Power Supplies" should be classed all articles which are necessary to the operation of the plants generating, transmitting and distributing the heat, light and power.

SELLING EXPENSE SUPPLIES

Under this heading should be classed all articles used by the selling departments.

RESERVE AND LONG TERM EXPENSES

A detailed account of each and every item composing these accounts should be shown, giving sufficient detail to enable the bookkeepers to distribute the items over the months during which the expense accrues or expires.

WORK IN PROCESS

Under this heading should be scheduled each and every cost sheet for work in process, and this schedule should show the total charges with an analysis of their composition (namely, material, labor, expenses, etc.); the deliveries made should also be shown with the estimated cost and value of said deliveries.

The cost sheets should be closed as at the time the inventory is taken; but, before the closing is made, all charges should be entered on same for work up to that time, and for material issued. The pay

roll should be figured to date and charged as customary during the previous year.

FINISHED PRODUCT

Under this heading should be classed all articles which were manufactured and are finished product ready for the market.

MERCHANDISE

Under this heading should be classed all articles which were purchased to sell and which are not manufactured, worked or reworked.

PART III

OPERATING FORMS

PRODUCTIVE LABOR

Employee's Number _____

Charge Order No. _____

Time Started		Time Finished	

Hours	Rate per Hour	Amount	Posted

Remarks : _____

Date will be stamped here by office

[illegible]

FORM No. 3—COST DEPARTMENT COPY
Receiving Book

Purchase Dept. No. _____ Register No. _____
Bought of _____
Received _____ Location _____

Make provision for binding here

Register Number	Marks	Quantity	Particulars	Rate		Per	Amount	

Deliveries

Order No.	Quantity	Order No.	Quantity	Order No.	Quantity

COST DEPARTMENT COPY

Department Work Order

Date Issued _____

Describe in detail work to be done. When this order is completed write on this form the result and return to this office.

[Signed] _____

Superintendent

COST DEPARTMENT COPY
Combining Department

Date Issued _____ Order No. _____

	Combine for	Lid		
		Box		
	Use	inch Body Paper		
		inch Glazed Paper		
		inch News Paper		

Describe in detail work to be done. When this order is completed write on this form the result and return to this office.

[Signed] _____
Superintendent

Register No. _____					
Description _____					
<hr/>					
Record of Goods Received			Deliveries		
Location			Order No.	Quantity	Amount
Date					
Cost	\$				
Added Charges					
Rate \$ _____ per _____					
Number	Quantity	Amount			

Carton Order No. 2155

Order Issued _____

Combining Order Issued _____

Rotary Machine:

Commenced _____ 190 _____

Machine No. _____

Operator No. _____

Counting Machine Registered:

At Finish _____

At Start _____

Count _____

Notes:

Folding and Gluing Machine:

Commenced _____ 190 _____

Machine No. _____

Operator No. _____

Counting Machine Registered:

At Finish _____

At Start _____

Count _____

Notes:

PRINTING ORDER

Order No. **2155**

WRAPPER ORDER

Order No. **2155**

FORM NO. 9—CHARGE SLIP, (MISC.)

CHARGE ORDER No. _____

Deliver to_____

Register Number	Particulars	Rate	Per	Amount

Date _____ 190_____

Signed _____

FORM NO. 10—CHARGE SLIP

CHARGE Combining Order No. _____

_____ Department. Date _____

Register Number		Original Weight	Weight Returned	Charge Weight	Rate	Amount
	Body Paper					
	Glazed Paper					
	News Paper					
	Paste					

Signed _____

Distribution of Expenses and Unproductive Labor

[illegible]

Date Compounded _____ Emulsion No. 6050	
Machines Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19	
Stored Tank No. _____	Cost _____ @ \$ _____ \$ _____
Note here drugs RUINED	Entered _____ Completed Verified _____
	How many machines operated same day _____
	Remarks: _____

MEDICINE

Machines No. 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19

Cost of Material					Cost of Labor				
Reg. No.	Qty.	Material	Rate	Amount	No.	Department	Hrs.	Rate	Amount
		Bottles, Large Used				Laboratory			
		“ “ Broken							
		“ Small Used							
		“ “ Broken				Bottling			
		Corks, Large Used							
		“ “ Broken							
		“ Small Used				Labeling			
		“ “ Broken							
		Labels, Large Sets Used							
		“ “ “ Broken							
		“ Small Sets Used							
		“ “ “ Broken							
		Pamphlets, Large Used							
		“ Small “							
		“ Destroyed							
		Cartons, Large Used				Casing			
		“ “ Destroyed							
		“ Small Used							
		“ “ Destroyed				Packing			
		Packing Cases, Large							
		“ “ Small							
		Total Material				Labor			

Production:

Large _____

Small _____

Gallons _____

Cost per bottle:	Completed:
Large_____	_____190
Small_____	

FORM
NO. 14—
ORDER TAG

Emulsion

No. 6050

Tank No. _____

Gallons _____

Compound _____

Compounded _____

	Large	Small	Cases	Quantity	Cost	Value
Loose Bottles			Large			
Packed			Small			

Emulsion No. 6050. Pamphlets and Cartons

Pamphlets	Reg. No.	Rate	Used	Value	Destroyed	Value
Large						
Small						
Cartons						
Large						
Small						

Emulsion No. 6050. Labels

Ruined Value		Rate							
		Face				Face			
		English	French	Back		English	French	Back	
Quantity Ruined									
Large Sets Used	Per Set			Value		Small Sets Used	Per Set		
	\$						\$		

Emulsion No. 6050. Corks

	Reg. No.	Cost	Used	Value	Destroyed	Value
Large						
Small						

Emulsion No. 6050. Bottles

	Reg. No.	Cost	Used	Value	Destroyed	Value
Large						
Small						

Warper Ticket

Warp No. _____ Lot No. _____

Yards _____ Weight _____

Ends _____ Rate, \$ _____

Warper's No. _____ Amount, \$ _____

Twister Ticket

Warp No. _____

Loom No. _____

Ends _____ Rate, \$ _____

Twister's No. _____ Amount, \$ _____

Picker Ticket

Factory Piece No. _____

Yards _____ Width _____

Rate, \$ _____ Amount, \$ _____

Picker's No. _____ Approved _____

FORM
No. 18 D

Factory Piece No. 1171

Style No. _____

Finished No. _____

Finished Weight _____

Finished Yards _____

Weaver's No. _____

Loom No. _____

Weight _____

Yards _____

FORM
No. 18 C

Sewing Ticket

Factory Piece No. 1171

Sewer's No. _____

Yards _____

FORM
No. 18 B

Burling Ticket

Factory Piece No. 1171

Employee's No. _____

Yards _____

FORM
No. 18 A

Weaving Ticket

Factory Piece No. 1171

Weaver's No. _____ **Cut** _____

Yards _____

Basis: Raw Silk @ \$ _____ per pound. QUALITY No. _____

Yards	Weight	Width
Make up of Warp	Material	
Ends	Warp _____ lbs. @ _____	
Yards	Throwing _____ “ _____	
	Dyeing _____ “ _____	
	Filling _____ “ _____	
	Dyeing _____ “ _____	
Make up of Filling	Wages	
Picks	Winding Silk _____ lbs. @ _____	
Width	Winding Cotton _____ “ _____	
	Warping _____ “ _____	
	Twisting _____ “ _____	
	Weaving _____ yds. @ _____	
	Picking _____ “ _____	
	Burling _____ “ _____	
	Sewing _____ “ _____	
Reed	Total Productive Labor	
Disposition	Non-productive Labor _____ %	
	Finishing _____ yds. @ _____	
	Refinishing _____ “ _____	
	Scouring _____ “ _____	
	Piece Dyeing _____ “ _____	
Skeins	Total Material and Wages	
Per cent. added for profits _____ %	Expense Loading _____ %	
	Cost of Product _____ yds.	
	Cost of 100 Yards	
	Sell for _____ per yd.	

Class

Department

[illegible]

Provide for binding here

Provisional Account

[illegible]

[illegible]

Charged to Account of :	

[illegible]

Monthly Statement for

Ledger Accounts		Entries made during the month		Trial Balance up to date			
				Profit and Loss		Balance Sheet	
Ledger Folio	Name of Accounts	Debit	Credit	Expense	Income	Assets	Liabilities
	Postage						
	Expense						
	Salary						
	Wages						
	Freight & Cartage						
	Repairs & Renewals						
	Insurance & Taxes						
	Advertising						
	Selling Expenses						
	Cost of Sales						
	Sales						
	Interest & Discount						
	Merchandise						
	Cash Sales						
	Provisional Account						
	First National Bank						
	Petty Cash Fund						
	Sales Ledger						
	Purchase Ledger						
	Bills Receivable						
	Bills Payable						
	Plant & Equipment						
	Capital						
	Surplus						
	Dividends						
	Profit & Loss						
	For month						
	Balance to date						

Debit

[illegible]

[illegible]

DEBITS

Book of Original Entry	0 (1 to 99)	1 (100 to 199)	2 (200 to 299)	3 (300 to 399)	4 (400 to 500)	Total
Trial Balance at beginning	599 601.22	710 820.91	47.31	87.20	90 601.15	1 401 157.79
Journal Debits	15 914.70	328.25	177 871.22	50.14	93.10	194 257.41
Cash Receipts	1 910 622.70	00	00	00	00	1 910 622.70
" Payments	998 446.00	20 000.00	00	403 274.60	475 601.90	1 897 322.50
Purchase Journal	947 608.22	00	00	00	00	947 608.22
" Credits	00	00	00	1 470.10	8 138.65	9 608.75
Sales Books	00	983 110.75	471 622.31	85 868.83	1.00	1 540 602.89
" Credits	31 715.63	00	00	00	00	31 715.63
Total Debits	4 503 908.17	1 714 259.91	649 540.84	490 750.87	574 435.80	7 932 895.89
" Credits	5 021 125.68	135 416.42	1 043 529.77	1 228 498.20	504 325.82	7 932 895.89
Debits in excess		1 578 843.49			70 109.98	1 648 953.47

CREDITS

Book of Original Entry	0 (1 to 99)	1 (100 to 199)	2 (200 to 299)	3 (300 to 399)	4 (400 to 500)	Total
Trial Balance at beginning	1 000 000.00	10 700.60	150 401.70	210 871.16	29 184.33	1 401 157.79
Journal Credits	71 605.91	110 000.00	00	00	12 651.50	194 257.41
Cash Receipts	501 870.63	00	875 610.42	533 026.05	115 60	1 910 622.70
Cash Payments	1 897 322.50	00	00	00	00	1 897 322 50
Purchase Journal	00	00	1 517.60	483 716.23	462 374.39	947 608.22
" Credits	9 608.75	00	00	00	00	9 608.75
Sales Books	1 540 602.89	00	00	00	00	1 540 602 89
" Credits	115.00	14 715.82	16 000.05	884 76	00	31 715.63
Total Credits	5 021 125 68	135 416.42	1 043 529.77	1 228 498 20	504 325 82	7 932 895.89
" Debits	4 503 908 47	1 714 259.91	649 540.84	490 750 87	574 435.80	7 932 895.89
Credits in excess	517 217 21		393 988 93	737 747.33		1 648 953.47

FORM NO. 31—ANALYSIS SHEET FOR ANALYZING A LEDGER

Ledger Folio	No. 1 Total Postings to Account	No. 2 Postings from General Journal	No. 3 Postings from Purchase Journal	No. 4 Postings from Sales Books	No. 5 Postings from Cash Receipts	No. 6 Postings from Cash Payments
5	6 794.11	125.00		6 649.91		19.20

FORM NO. 32—LEDGER ACCOUNT ILLUSTRATING ANALYZING A LEDGER

F. W. BROWN & Co. ACCOUNT

1903				1903			
Jan. 1	Balance L	171	10 701.50	Jan. 25	Cash	174	4 000.00
15	Mdse.	305	710.60	31	"	180	1 701.50
20	"	315	91.60	Feb. 24	Bills Rec. J	315	5 000.00
25	"	370	1 191.52	27	Cash	202	3 314.50
26	Freight C	175	19 20				
27	Mdse.	390	410 20				
29	"	395	910 60				
Feb. 7	"	410	92.10				
9	"	415	191.70				
17	Interest J	337	125.00				
17	Mdse.	435	71.60				
19	"	440	192 60				
27	"	470	1 605.71				
Mh. 28	"	563	91.20				
31	"	608	97.41				
Apl. 10	"	619	110.72				
22	"	635	89.25				
28	"	710	601.83				
28	"	711	191.27				
May 1	Forward	6	17 495.61		Forward		14 016.00

FORM NO. 33—MONTHLY STATEMENT

Ledger Folio	Balance Sheet	Entries for Month		Trial Balance	
	Accounts	Debits	Credits	Debits	Credits
	Capital				
	Cash				
	Purchase Ledger				
	Sales Ledger				
	Petty Ledger				
	Bills Receivable				
	Bills Payable				
	Furniture and Fixtures				
	Merchandise: Inventory				
	Wholesale				
	Retail				
	Totals				
	General Expenses				
	Wholesale Department				
	Retail Department				
	Profit and Loss				
	Dividends				
	Surplus				
	Totals				

Ledger Folio	Income and Expense	Entries for Month		Trial Balance	
	Accounts	Debits	Credits	Debits	Credits
	General Expenses				
	Office Salaries				
	Sundry Expenses				
	Rent				
	Heat, Light and Power				
	Taxes				
	Insurance				
	Cartage				
	Transportation				
	Totals				
	Interest on Notes				
	Disc't on Sales and Purchases				
	Balance				
	Totals				
	Wholesale Department				
	Wholesale Wages				
	Transportation				
	Cost of Sales				
	Sales				
	Salesmen's Salaries				
	Salesmen's Expenses				
	Balance				
	Totals				
	Retail Department				
	Cost of Sales				
	Sales				
	Wages				
	Advertising				
	Balance				
	Totals				

PRICE TO SELL: _____ Cloth _____ finished _____

DATE EXECUTED.. 190

Based on: Cost Sheets of _____ Mill for quarter ending _____ .190
Cost of Cotton Purchased @ _____ per pound
Figured on _____ pounds of Cloth Manufactured. Made on _____ Loom
Warp Yarn No _____ Sley _____ Filling Yarn No _____ Picks _____
Length of Warp prepared _____ yards to produce _____ yards of Cloth

[illegible]

FORM No. 36.

PRICE TO SELL: YARN No. Style on
DATE EXECUTED - 190

Based on Cost Sheets of		Mill for quarter ending 190	
Based on Cotton		purchased @ per pound	
Cost to Manufacture Yarn:		Per pound	
Dyeing Cotton: Color		Per pound	
Twisting: ply,		Per pound	
(Average Labor Cost increased by proportion of Department Expenses)			
Winding: On		Per pound	
(Average Labor Cost increased by proportion of Department Expenses)			
Yarn Supplies: Cost of Cones, Tubes, Packing Materials etc.			
Spooling:		Per pound	
(Average Labor Cost increased by proportion of Department Expenses)			
Total Cost			
Allowance		% for Waste in Winding and Twisting	
Providing		% for Selling Expenses freight, etc	
Providing		% for Profit	
Increases Total Cost 100/		and equals	
Sell for		per pound	

FORM NO. 37.

NUMBER

RANGE No

FABRIC .. SELLING WEIGHT . . OUNCES DATE 190

		DESCRIPTION		COMPUTED WEIGHT	ACTUAL WEIGHT	PRICE CLEANED	COST	SUMMARY
Warp Dressed	Yds	Make-up of Lots.						
Weight	Lbs							
Ends								
Picks								
Filling Yarn	Lbs							
Loom Width	Inches							
Off Loom,		Material,						
Yards,								
Weight,	Lbs							
Width,	Inches							
		Total Charge for Material,						
Finished,		Wages,						
Yards,		Mixing and Oiling,		Lbs. @				
Weight,	Lbs	Carding and Spinning,		Lbs @				
Width,	Inches	Dyeing,		Lbs @				
		Twisting,		Lbs @				
Sell \$	per Yard	Warp Spooling		Lbs @				
		Warp Dressing and Drawing in		Yds @				
		Weaving and Weaving Expense		Yds @				
		Burling and Sewing,		Yds @				
		Dyeing in Piece,		Lbs @				
		Finishing,		Yds @				
		Total Charge for Wages,						
		Total Charge for Material and Wages,						
		Adding	% for all Expenses,					
		Cost of Producing and Selling, \$ per Yard						

PART IV

REPORT FORMS

REPORT FORMS

Report Forms Nos. 1 to 9, inclusive

These forms are never submitted as the main exhibits of a report, but are supplementary exhibits added, to supply statistics used in figuring costs and the selling basis. (See *percentage costs*.)

Report Form No. 10. (Page 236.)

This form is a balance sheet to be submitted as part of the report to the proprietors of the business.

Your attention is directed to the way the items for inventory and furniture and fixtures are qualified; to the method of summing up the current liabilities; and to the form of entering the changes in the capital accounts when it is not desirable to make an exhibit showing the partnership accounts.

The balances carried from Exhibit B are the connecting links between the balance sheet and the statement of profit and loss.

Report Form No. 11. (Page 238.)

This form is a profit and loss account for a trading business. The object is to show the net profits of the business for the period and the distribution of the profits to the interested parties.

On the debit side of the account is charged the expenses, the accounts being grouped so as to exhibit in detail and in total the expenses of the business in the manner most suited to the requirements of the business.

Your attention is directed to the grouping of the expenses and the detail. Never show an extended analysis unless required; the tendency to go to extremes in analyzing accounts too often destroys the value of the report. The average layman cannot comprehend an elaborate report and is only confused with a mass of detail.

The gross profit in trading carried from Exhibit C is the con-

necting link between this exhibit and the trading account; the distributed profit carried to the partners' accounts in the balance sheet is the connecting link between this exhibit and the balance sheet.

This method of closing the account and carrying the net profit down for distribution is not universally adopted. Some accountants simply show the distribution of the net profit by carrying the items short; viz.:

Balance being net profit for the year distributed as follows:

Edward S. Johnson, one third.....\$6 253.72

David J. Hill, two thirds.....12 507.43

Total for the year 1901 (extended).... \$18 761.15

Report Form No. 12. (Page 240.)

This form is a trading account for a trading business. The prime object in view is to exhibit the basis upon which the goods can be priced.*

The cost of sales is shown as a charge against the net sales, and the result is the gross profit on trading.

On the debit side, the inventory of merchandise for the beginning of the period should be added to the net purchases of merchandise for the period, and from the sum should be deducted the inventory for the end of the period. The result should be the cost of the merchandise sold.

The sales are entered on the credit side of the account for the gross amount, and the returns and allowances on the sales are deducted to show the net sales for the period.

The balance of the account is the gross profit, and the percentage of the gross profit to the cost of sales should be about the average per cent. added to the purchase price of the merchandise to determine the selling price.

Never confuse the sales and purchases by including sales returns and allowances with the purchases, or by including the returned purchases with the sales.

The English custom of entering trading charges in this account is not regarded favorably in America, except when showing the operations of several departments of the same business; in this case

the expenses of each department are entered to show the result for the department.

Report Form No. 13. (Page 242.)

This form is a balance sheet to be submitted as part of the report to the officers or directors of a corporation.

Your attention is directed to the method of setting up the capital stock so as to show the amount authorized and the amount issued.

Note also the means of showing the surplus account. If dividends were paid, an exhibit should be made for the surplus account.

The net profit carried from the manufacturing and trading account is the connecting link between this exhibit and Exhibit B.

Report Form No. 14. (Page 244.)

This form is a manufacturing and trading account to be prepared where no distinction is made between manufacturing and selling.

The form is sometimes split after the manufacturing expenses and the balance gross profit is carried to a profit and loss statement, where the general expenses and commission and guarantee are set up against the gross profit. (See Report Form No. 15.)

Where items, foreign to the business, are entered in the profit and loss account, a statement of profit and loss should be made in addition to the manufacturing and trading account.

Report Form No. 15. (Page 246.)

This form is a profit and loss account to be submitted in connection with a trading account, when the selling division of the business is operated independently.

The connecting link between the surplus account, or balance sheet, and this exhibit is the net profit.

The connecting link between the trading account and this exhibit is the gross profit carried from the trading account.

Report Form No. 16. (Page 248.)

This form is a trading account to be submitted in connection with a manufacturing account and a profit and loss account.

The method of setting up the cost of production as part of the

purchase price, in determining the cost of sales, is shown, and this item is the connecting link between this exhibit and the manufacturing account.

The connecting link between this exhibit and the profit and loss account is the gross profit on trading which is carried to profit and loss.

Never show the sales of waste in a trading account.

Report Form No. 17. (Page 250.)

This form is a manufacturing account to be submitted in connection with a trading account.

The prime feature is the cost of the production which is the connecting link between the manufacturing account and the trading account.

The sales of waste are an offset to the cost of material consumed and should be set up in this account, but not deducted from the cost of material consumed.

Report Form No. 18. (Page 252.)

This form is a comparative statement of profit and loss, to be submitted in connection with a comparative trading account and a balance sheet for a business operated by separate departments.

Report Form No. 19. (Page 254.)

This form is a comparative trading account to be submitted in connection with Report Form No. 18.

Your attention is particularly directed to the way the labor is treated in the carpet department and in the furniture department.

Both items of labor appear in the trading account as set up, because they are elements of the cost of sales.

The labor of the furniture department is included in the inventory for the end of the period, because the finished furniture is inventoried at the finished value, and the labor charged is not conditional with the sale, whereas the cost of making and fitting the carpets is conditional with the sale and, in character, virtually an added cost.

The connecting link between this report and the profit and loss account, Exhibit B, is the gross profit.

Report Form No. 20. (Page 256.)

This form is a balance sheet which is submitted as part of the report consisting of Forms Nos. 20 to 27, inclusive.

The reference to exhibits is made to illustrate a complete report.

Your attention is particularly directed to the form of certifying the main exhibits when the report is certified.

The connecting link between this exhibit and Exhibit B is the net profit for the fiscal year.

Report Form No. 21. (Page 258.)

This form is a statement of profit and loss for a fiscal year (year ending some date other than the calendar year).

Your attention is directed to the form of setting up bad debts charged off and recovered; and to interest and discount earnings and expenses.

The connecting link between this exhibit and Exhibit C is the gross profit, which is carried from the trading account.

Report Form No. 22. (Page 260.)

This form is a trading account which is submitted in connection with the foregoing Exhibits A and B.

The features to be considered are the purchases of domestic merchandise, the purchases of foreign merchandise and the entry for duties, foreign freight, etc.

Special charges for expenses incurred in connection with purchases, which are considered as part of the purchase price and included in the inventory, should be set up with the purchases before deducting the inventory for the end of the period.

The connecting link between this exhibit and Exhibit B is the gross profit on trading which is carried to the profit and loss account.

Report Form No. 23. (Page 262.)

This form is a schedule of the bills receivable (notes of others held by the company).

Some accountants describe such exhibits as schedules in the text of the report. There is no more reason for characterizing a balance

sheet or statement as an "exhibit" than there is for characterizing a schedule as an "exhibit."

The arrangement of the items is not imperative, unless the report requires full detail.

The commonest plan of arranging bills receivable is to head columns for maker, time, due date and amount, and simply schedule the items using only one line for each item.

This exhibit is supplementary to the balance sheet. The connecting link between this exhibit and the balance sheet is the total of the bills receivable which appears in the balance sheet.

Report Form No. 24. (Page 263.)

This form is a schedule of accounts receivable and has been favorably considered; but care must be exercised in qualifying the accounts or you will lay yourself open to criticism.

When a report is made at a later date, the accounts which were settled can be shown.

A simple schedule of the ledger folios, names and amounts is generally sufficient. For other forms see previous remarks, and Report Form No. 47.

This exhibit is supplementary to the balance sheet. The connecting link between this exhibit and the balance sheet is the total of the accounts receivable which appears in the balance sheet.

Report Form No. 25. (Page 264.)

This form is a schedule of the policies for unexpired insurance and gives the details of each policy.

The common method is simply to list the policies similar to Report Form No. 47, showing only the number of the policy, the expiry date, the premium, and the unexpired portion.

The connecting link between this exhibit and the balance sheet is the total of unexpired insurance which appears in the balance sheet.

Report Form No. 26. (Page 265.)

This form is a schedule of bills payable (company's outstanding notes) and the remarks applying to Report Form No. 23 are appropriate to this exhibit.

The connecting link between this exhibit and the balance sheet is the total of the bills payable, which appears in the balance sheet.

Report Form No. 27. (Page 266.)

This form is a schedule of accounts payable.

If the company is financially embarrassed, the accounts may be set up to show the urgency of each claim by stating the due date, terms, etc.

The connecting link between this exhibit and the balance sheet is the total accounts payable, which appears in the balance sheet.

Report Form No. 28. (Page 268.)

This form is a balance sheet to be submitted as a part of the report made to the stockholders, fiscal agents, or prospective purchasers of an interest in the corporation.

The fixed assets and fixed liabilities are set up first because of their relative importance to the clients.

The connecting link between this exhibit and Exhibit II is the balance of the surplus account.

Report Form No. 29. (Page 270.)

This form is a statement of the surplus account and is submitted in connection with the balance sheet Exhibit I, because it is not considered good form to embody statements in the balance sheet.

Your attention is directed to the method of entering dividends, plant and equipment charged off, and capital stock donated.

The connecting link between this exhibit and Exhibit I is the surplus for the end of the period.

The connecting link between this exhibit and Exhibit III is the net profit carried from Exhibit III.

The connecting link between this exhibit and Exhibit II is the surplus at the beginning of the period and the surplus at the end of the period.

Report Form No. 30. (Page 272.)

This form is a statement of profit and loss to be submitted in connection with the other exhibits of this report.

Your attention is directed to the entries for bad accounts and the amount recovered on bad accounts. It is particularly directed to the method of closing the account, carrying the balance down, and showing items which are not necessarily a part of the business.

Interest and discount are financial transactions, and there are many conditions where it is absolutely necessary to show the items as exhibited.

When depreciation of an extraordinary character is charged off, such charges are also set up in the same method as the interest and discount.

The connecting link between this exhibit and Exhibit II is the net profit, which is carried to the surplus account.

The connecting link between this exhibit and Exhibit IV is the gross profit carried from the trading account.

Report Form No. 31. (Page 274.)

This form is a trading account to be submitted in connection with the other exhibits of this report. The remarks relating to Report Form No. 16 are appropriate to this exhibit.

The connecting link between this exhibit and Exhibit III is the gross profit carried to the profit and loss account.

The connecting link between this exhibit and Exhibit V is the net cost of manufacturing carried from the manufacturing account.

Report Form No. 32. (Page 276.)

This form is a manufacturing account submitted in connection with the other exhibits of this report.

Your attention is directed to the manner of setting up the sales of waste, which is an offset to the cost of material consumed.

Report Form No. 33. (Page 276.)

This form is a comparative balance sheet and is supplementary to the other exhibits of this report.

The connecting links between this exhibit and the report proper are the various items of the balance sheet for the end of the period, which is Exhibit I, and the balances of surplus for the beginning and end of the period which appear in Exhibit II.

Reports Forms Nos. 34 to 40 inclusive

These forms are similar to the previous forms, excepting that they are a little more complicated.

The period covered by this report was three years.

The Report Form No. 35 is different from the others because the circumstances called for separate accounts.

The Report Form No. 36 is also different for the same reason. This statement shows the real profits and the Report Form No. 43 shows the profits as appearing on the books of the company. The claim that the profits for 1905 was \$22 194.33 and for 1906 \$15 025.81 is refuted by the copy of the profit and loss account for 1906, which is Exhibit 43.

Setting up accounts in the form shown in this report will exhibit the true sources of all items of surplus and profit and loss.

Report Form No. 40 illustrates the method of setting up a comparative balance sheet or statement of assets and liabilities. The latter name applies to this form, because the condensed trial balance for the date of the audit is embodied in the exhibit.

Report Form No. 41. (Page 302.)

This form is a comparative statement of profit and loss for three years, and illustrates the method of showing the various items, so that a comparison can be made. Your attention is directed to the method of setting up the credits which were deducted from the sales for the year.

Report Form No. 42. (Page 304.)

This form is a condensed trial balance for the date the audit was made, and should be submitted, if the audit is made a date later than the closing of the books, for the purpose of determining the condition of the business for a client who is a possible purchaser of an interest in the business.

Report Form No. 43. (Page 306.)

This form is a summary of the profit and loss account as it appeared on the books of the company, and is submitted to illustrate the proper

method of reporting the results as shown by the books when the books are inaccurate, because of errors of omission or commission.

Report Form No. 44. (Page 308.)

This form is a statement of the account of the company controlled by the vender of the company examined.

Report Form No. 45. (Page 309.)

This form is a comparative statement of statistics and percentages of interest to the vendee and its importance is evident.

Report Form No. 46. (Page 310.)

This form is a condensed trial balance and illustrates the method of establishing the equilibrium of the trial balance by adding to the general accounts the totals of the accounts receivable and accounts payable.

Report Form No. 47. (Page 311.)

This form is a schedule of bills receivable and illustrates the methods of condensing the schedules when full particulars are not essential.

Report Form No. 48. (Page 312.)

This illustrates the form used when certifying a balance sheet separated from the regular report. It is very acceptable to bankers because it enables them to see at a glance the amount of the current assets and liabilities and fixed assets and liabilities. This balance sheet is compiled from Report Form No 28, page 268.

In General

Report Results not on Books.—The statement of profit and loss embodied in the report of an audit need not appear in that form on the books of the company in order to certify that the results are *as per the books*. It is essential only that the net results as shown by the report appear on the books.

If the net results shown in the report do not coincide with the books, a statement should be added to your report to show wherein the books differ from your report. (See Report Form 43.)

PERCENTAGES OF THE VARIOUS ELEMENTS OF COST (SIMPLE).

			Percent- age of Manifg Cost.	Percent- age of Whole Cost.	Percent- age of Sales
1.	Cost of Material,	198 551.28	57%	53%	45%
2.	Cost of Labor,	107 611.43	31%	29%	24%
3.	Manufacturing Expenses,	10 693.77	3%	3%	2%
4.	General Expenses,	30 766.55	9%	8%	7%
5.	Manufacturing Cost,	347 623 03	100%	93%	78%
6.	Selling Expenses: Commission and Guarantee,	28 941.11		7%	6%
7.	Whole Cost,	376 564.14		100%	84%
8.	Profits for the year 1901,	69 471.37			16%
9.	Sales,	446 035 51			100%

REPORT FORM NO. 1. (For report, see Report Forms Nos. 13 and 14.)

PERCENTAGES OF THE VARIOUS ELEMENTS OF COST (COMPOUND).

		Percent- age of Manfg. Cost.	Percent- age of Whole Cost.	Percent- age of Sales.
Cost of Material,	201 040.69	62%	56%	47%
Cost of Labor,	101 342.17	31%	28%	24%
Manufacturing Expenses,	21 874.60	7%	6%	5%
Manufacturing Cost,	324 257.46	100%	90%	76%
Inventory of Merchandise, Dec. 31, 1900,	117 394.11			
Purchases of Merchandise during year,	140 291.87			
Total,	581 943.44			
Deduct: Inventory of Mer- chandise, Dec. 31, 1901,	94 762.18			
Cost of Sales,	487 181.26		90%	76%
Selling Expenses,	54 892.13		10%	9%
Whole Cost,	542 073.39		100%	85%
Profits for the year 1901,	93 874.60			15%
Sales for the year 1901,	635 947.99			100%

REPORT FORM NO. 2. (See also Report Forms Nos. 6 and 15, 16 and 17.)

CONDENSED STATEMENT OF PROFIT AND LOSS FOR THE YEAR 1901.

Inventory of Merchandise, December 31, 1900,	17 691.40
Purchases of Merchandise made during the year, (Less: Purchase Credits for Returns and Allowances.)	100 471.18
Total,	118 162.58
Less. Inventory of Merchandise December 31, 1901,	19 111.44
Cost of Sales,	99 051.14
General Expenses,	11 477.69
Selling Expenses,	25 311.87
Whole Cost,	135 840.70
Profits for the year 1901,	18 761.15
Sales for 1901 (Less Returns and Allowances),	154 601.85

REPORT FORM NO. 3. (For report, see Report Forms Nos. 10, 11 and 12.)

CONDENSED STATEMENT OF PROFIT AND LOSS FOR THE YEAR 1901.

Inventory of Material, December 31, 1900,	50 701.80
Purchases of Material made during 1901 (Less Purchase Credits for Returns and Allowances),	178 611.85
Total,	229 313.65
Less Inventory of Material, December 31, 1901,	30 762.37
Cost of Material,	198 551.28
Labor,	107 611.43
Manufacturing Expenses,	10 693.77
General Expenses,	30 766.55
Cost of Manufacturing,	347 623.03
Selling Expenses, Commission and Guarantee,	28 941.11
Whole Cost,	376 564.14
Profits for the year 1901,	69 471.37
Sales (Less Returns and Allowances),	446 035.51

REPORT FORM No. 4. (For report on above, see Report Forms Nos. 13 and 14.)

CONDENSED STATEMENT OF PROFIT AND LOSS FOR THE YEAR 1901.

Inventory of Merchandise and Material, December 31, 1900,	141 309.72
Purchases of Merchandise during the year 1901 (Less. Purchase Credits for Returns and Allowances),	201 755.31
Purchases of Material during the year 1901 (Less. Purchase Credits for Returns and Allowances),	194 609.77
Totals,	537 674.80
Less. Inventory of Merchandise and Material, December 31, 1901,	123 461.12
Cost of Merchandise and Material,	414 213.68
Labor,	191 604.11
Factory Expenses,	37 692.15
General Expenses,	24 608.21
Selling Expenses,	57 223.44
Whole Cost,	725 341.59
Profits for the Year 1901,	84 367.22
Sales for the year (Less Returns and Allowances),	809 708.81

CONDENSED STATEMENT OF PROFIT AND LOSS FOR THE YEAR 1901.

Inventory of Material, December 31, 1900,	47 211.82
Purchases of Material made during the year 1901, (Less: Purchase Credits for Returns and Allowances),	201 777.84
Total,	248 989.66
Less: Inventory of Material, December 31, 1901,	39 477.86
Material Consumption,	209 511.80
Deduct Offset Sales of Waste,	8 471 11
Cost of Material,	201 040.69
Labor,	101 342.17
Manufacturing Expenses,	21 874.60
Manufacturing Cost of Production,	324 257.46
Inventory of Merchandise, December 31, 1900,	117 394.11
Purchases of Merchandise made during 1901 (Less: Purchase Credits for Returns and Allowances),	140 291.87
Total,	581 943.44
Less: Inventory of Merchandise, December 31, 1901,	94 762.18
Cost of Sales,	487 181.26
Selling Expenses,	54 892.13
Whole Cost,	542 073 39
Profits for the Year 1901,	93 874.60
Sales, (Less: Returns and Allowances),	635 947.99

REPORT FORM No. 6. (For report on above, see Report Forms Nos. 15, 16 and 17.)

CONDENSED STATEMENT OF PROFIT AND LOSS FOR THE YEAR 1901.

Inventory of Furniture, December 31, 1900,	121 809.15
Purchases of Finished Furniture during the Year 1901,	198 761.13
Purchases of Unfinished Parts during the Year 1901,	177 693.55
Labor. Setting Up and Finishing Furniture	10 763.88
Total,	509 027.71
Less: Inventory of Furniture, December 31, 1901,	104 786.22
Cost of Sales,	404 241.49
Salary and Wages,	39 723.47
Expenses,	49 767.33
Whole Cost,	493 732.29
Profits for the Year 1901,	49 767.34
Sales, (Less: Returns and Allowances),	543 499.63

REPORT FORM NO. 7. (For report on above, see Report Forms Nos. 18 and 19.)

CONDENSED STATEMENT OF PROFIT AND LOSS FOR THE YEAR 1901.

	Inventory of Carpets, December 31, 1900,	117 322.44
	Purchases of Carpets during the Year 1901 (Less: Purchase Credits for Returns and Allowances),	310 267 78
	Total,	427 590.22
	Less. Inventory of Carpets, December 31, 1901,	108 427.39
	Cost of Carpets,	319 162.83
	Labor: (Cutting, Fitting and Laying Carpets),	9 431.29
	Salary and Wages,	34 311.28
	Expenses,	49 777.65
	Whole Cost,	412 683.05
	Profits for the Year 1901,	58 744.22
	Sales for the Year 1901, (Less. Returns and Al- lowances),	471 427.27

REPORT FORM No. 8. (For report on above, see Report Forms Nos 18 and 19)

CONDENSED STATEMENT OF PROFIT AND LOSS FOR THE FISCAL YEAR ENDING
OCTOBER 31, 1902

Inventory of Merchandise, October 31, 1901,	127 604.11
Purchases of Foreign Merchandise (Less. Credits for Returns and Allowances),	304 111.82
Duty, Foreign Freight, etc.,	176 801.15
Purchases of Domestic Merchandise (Less: Credits for Returns and Allowances),	217 444.26
Total,	825 961.34
Deduct. Inventory of Merchandise, October 31, 1902,	118 432.73
Cost of Sales,	707 528.61
Selling Expenses,	54 608.15
General Expenses, (Includes Interest and Bad Debts),	67 846.18
Whole Cost,	829 982.94
Net Profits for the fiscal year ending October 31, 1902,	25 376.76
Sales, (Less: Returns and Allowances),	855 359.70

REPORT FORM NO. 9. (For report on above, see Report Forms Nos 20 to 22.)

BALANCE SHEET,

<i>Assets :</i>			
Cash on hand December 31, 1901.			
First National Bank,	31 827 54		
Petty Cash,	500.00		
Total,		32 327.54	
Bills Receivable as per Exhibit D,		1 100.00	
Accounts Receivable as per Exhibit E,			
Sundry Sales Accounts,	41 397.60		
Edward Davis,	1 000.00		
Total,		42 397.60	
Inventory of Merchandise:			
(No responsibility assumed for quantities and prices.)		19 111.44	
Unexpired Insurance as per Exhibit F,		1 047.30	
Furniture and Fixtures (As per books),		9 722.38	
Total Assets,		105 706.26	

AND HILL.

EXHIBIT A.

DECEMBER 31, 1901.

	<i>Liabilities:</i> Bills Payable as per Exhibit G: Bank Accommodations, Sundry Creditors, Total, Accounts Payable as per Exhibit H,	 25 000.00 10 000.00 	 35 000.00 7 321.15
	Total Current Liabilities, E. S. Johnson Capital Account: Balance, December 31, 1900, Profits for year, Exhibit B, Total, Less Personal Drawings, Balance, December 31, 1901, David S. Hill Capital Account: Balance, December 31, 1900, Profits for year, Exhibit B, Balance, December 31, 1901,	 9 534.13 6 253.72 15 787.85 2 005.70 37 095.53 12 507.43 	 42 321.15 12 782.15 49 602.96
	Total,		105 706.26

MESSRS. JOHNSON

PROFIT AND LOSS ACCOUNT FOR THE

<i>Debits:</i>		
General Expenses:		
Office Salary and Wages,	5 471.62	
Office and General Expense,	2 113.87	
Rent,	2 000 00	
Telephone and Telegrams,	947.60	
Legal Expense,	944.60	
Total,		11 477.69
Selling Expenses:		
Salesmen's Salaries,	8 722.15	
Salesmen's Expenses,	10 233.54	
Advertising,	3 944.11	
Gratis Account,	321.54	
Commission,	2 090.53	
Total,		25 311.87
Balance being Net Profits carried down,		18 761.15
Total,		55 550.71
Division of Profits:		
E. S. Johnson, one third,		6 253.72
David S. Hill, two thirds,		12 507.43
Total,		18 761.15

REPORT FORM NO. 11.

AND HILL.

EXHIBIT B.

YEAR ENDING DECEMBER 31, 1901.

<p><i>Credits:</i> Gross Profits on Trading carried from the Trading Account, Exhibit C,</p>		55 550.71
Total,		55 550.71
Balance carried from above,		18 761.15
Total,		18 761.15

MESSRS. JOHNSON

TRADING ACCOUNT FOR THE

<i>Debits:</i>	
Inventory of Merchandise, December 31, 1900. (No responsibility assumed for quantities and prices.)	17 691.40
Purchases of Merchandise. (Less Purchase Credits for Returns and Allowances.)	100 471.18
Total,	118 162.58
Deduct: Inventory of Merchandise, December 31, 1901. (No responsibility assumed for quantities and prices)	19 111.44
Cost of Sales,	99 051.14
Balance, being Gross Profits on Trading carried to Profit and Loss Account, Exhibit B,	55 550.71
Total,	154 601.85

THE WILLIAMS

BALANCE SHEET,

<i>Assets:</i>		
Cash on hand, December 31, 1901,		
Petty Cash Fund,	300 00	
First National Bank,	29 654 18	
Total,		29 954 18
Inventory of Material,		
(Not responsible for quantities and prices.)		
Parts and Findings,	14 983 11	
Sole Leather,	9 377.84	
Goat Skins,	3 225 00	
Sundries,	3 176.42	
Total,		30 762.37
Bills Receivable as per Exhibit C,		10 000.00
Accounts Receivable as per Exhibit D,		115 497.82
Unexpired Insurance as per Exhibit E,		371.50
Total Assets,		186 585.87

DECEMBER 31, 1901.

<i>Liabilities:</i> Bills Payable as per Exhibit F, Accounts Payable as per Exhibit G,		10 000.00 27 601.18
Total Current Liabilities, Capital Stock: Authorized (1000 Shares @ \$100 par value), Unissued, Issued, December 31, 1901, Surplus Account: Balance, December 31, 1900, Profit for 1901 as per Exhibit B, Balance, December 31, 1901,	 100 000.00 30 500 00 10 013.32 69 471 37 .	 37 601.18 69 500.00 79 484.69
Total,		186 585 87

THE WILLIAMS

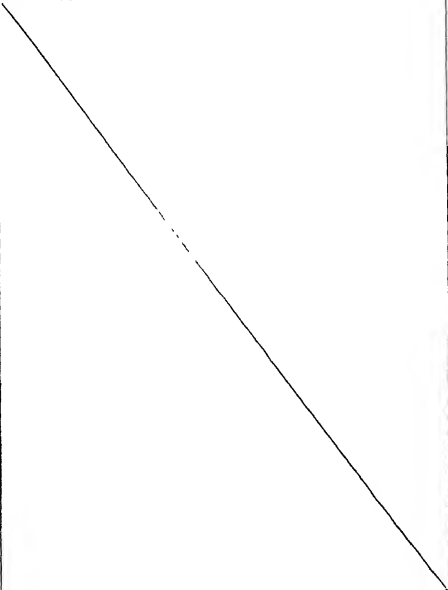
MANUFACTURING AND TRADING ACCOUNT

<i>Debits:</i>		
Inventory of Material, December 31, 1900. (No responsibility assumed for quantities and prices)		50 701.80
Purchases of Material made during 1901. (Less: Credits for Returns and Allowances.)		178 611.85
Total,		229 313.65
Deduct: Inventory of Material, December 31, 1901. (No responsibility assumed for quantities and prices).		30 762.37
Cost of Material,		198 551.28
Labor,		107 611.43
Manufacturing Expenses:		
Rent,	2 500.00	
Heat, Light and Power,	520.00	
Supervision,	3 900.05	
Sundry Expenses,	3 773.72	
Total,		10 693.77
General Expenses:		
Office Salaries,	16 229.62	
Office Expenses,	7 947.60	
General Expenses,	4 271.83	
Freight and Cartage,	2 317.50	
Total,		30 766.55
Commission and Guarantee,		28 941.11
Net Profits for the year carried to Exhibit A,		69 471.37
Total,		446 035.51

SHOE COMPANY.

EXHIBIT B.

FOR THE YEAR ENDING DECEMBER 31, 1901.

<i>Credits:</i>		
Sales for the year 1901,	457 433.33	
Less: Returns and Allowances,	11 397 82	
Net Sales for the year 1901,		446 035.51
		
Total,		446 035.51

THE ELLISON

PROFIT AND LOSS ACCOUNT FOR THE

<i>Debits:</i>	
Selling Expenses:	
Salesmen's Salaries,	15 114.11
Salesmen's Expenses,	19 837.72
Rent of Salesroom,	2 001.34
Commission,	3 925.29
Delivery Service,	2 972.87
Heat, Light and Power,	1 005.76
Total,	44 857.09
Administration Expenses,	10 035.04
Balance, being Net Profits,	93 874.60
Total,	148 766.73

REPORT FORM NO. 15.

MANUFACTURING COMPANY

EXHIBIT B.

YEAR ENDING DECEMBER 31, 1901.

<i>Credits:</i>	
Gross Profits carried from Trading Account, Exhibit C,	148 766.73
<hr/>	
Total,	148 766.73

THE ELLISON

TRADING ACCOUNT FOR THE

<p><i>Debits:</i></p> <p>Inventory of Merchandise, December 31, 1900. (No responsibility assumed for quantities and prices.)</p> <p>Cost of Production for the year, as per Manufacturing Account, Exhibit D,</p> <p>Purchases of Merchandise (Less: Credits for Returns and Allowances.)</p> <p>Total,</p> <p>Deduct: Inventory of Merchandise, December 31, 1901. (No responsibility assumed for quantities and prices.)</p>	<p>117 394.11</p> <p>324 257.46</p> <p>140 291.87</p> <hr/> <p>581 943.44</p> <p>94 762.18</p>
<p>Cost of Sales,</p> <p>Balance being Gross Profit on Trading carried to Exhibit B,</p>	<p>487 181.26</p> <p>148 766.73</p>
<p>Total,</p>	<p>635 947.99</p>

MANUFACTURING COMPANY.

EXHIBIT C.

YEAR ENDING DECEMBER 31, 1901.

<i>Credits:</i>		
Sales,		638 135.15
Deduct. Credits for Returns and Allowances,		2 187.16
<u>Net Sales for the year 1901,</u>		635 947.99
Total,		635 947.99

THE ELLISON

MANUFACTURING ACCOUNT FOR THE

	<p><i>Debits:</i></p> <p>Inventory of Material, December 31, 1900, (No responsibility assumed for quantities and prices.)</p> <p>Purchases of Material. (Less. Credits for Returns and Allowances.)</p> <p>Total,</p> <p>Deduct: Inventory of Material, December 31, 1901. (No responsibility assumed for quantities and prices)</p>	<p>47 211.82</p> <p>201 777.84</p> <hr/> <p>248 989.66</p> <p>39 477.86</p>
	<p>Consumption of Material,</p> <p>Labor,</p> <p>Manufacturing Expenses:</p> <p>Supervision, \$3 974.16</p> <p>Heat, Light and Power, 1 170.24</p> <p>Sundry Expenses, 8 922.37</p> <p>Depreciation, 7 807.83</p> <p>Total,</p>	<p>209 511.80</p> <p>101 342.17</p> <p>21 874.60</p>
	<p>Total,</p>	<p>332 728.57</p>

REPORT FORM NO. 17.

MANUFACTURING COMPANY.

EXHIBIT D.

YEAR ENDING DECEMBER 31, 1901.

<p><i>Credits:</i></p> <p>Sales of Waste.</p> <p>Balance being Manufacturing Cost carried to Trading Account, Exhibit C,</p>	<p>8 471.11</p> <p>324 257.46</p>
<p>Total,</p>	<p>332 728.57</p>

THE HOME FURNITURE

PROFIT AND LOSS ACCOUNT FOR THE

	Furniture.	Carpets.	Total.
<i>Debits:</i>			
Salary and Wages:			
General Office Salaries (Prorated on a basis of Gross Sales),	10 893.74	9 470.80	20 364.54
Department Salary and Wages,	28 829.73	24 840.48	53 670.21
Expenses:			
General Expenses (Pro- rated on a basis of Gross Sales),	16 340.61	14 206.20	30 546.81
Sundry Department Expenses,	12 906.95	15 330.21	28 237.16
Rent (Based on floor space),	11 200 00	10 755.00	21 955.00
Insurance,	3 922.16	4 763.71	8 685.87
Warehouse Expense,	5 397.61	4 722.53	10 120.14
Net Profits on Furniture,	49 767.34		
Net Profits on Carpets,		58 744.22	
Total Net Profits, carried to Exhibit A,			108 511.56
Totals,	139 258.14	142 833.15	282 091.29

EXHIBIT B.

	Furniture.	Carpets.	Total.
<i>Credits:</i>			
Gross Profits on Trading, carried from Exhibit C:			
Furniture,	139 258.14		
Carpets,		142 833.15	
Total,			282 091.29
/			
Totals,	139 258.14	142 833.15	282 091.29

THE HOME FURNITURE

TRADING ACCOUNT FOR THE

<i>Debits:</i>	Furniture	Carpets	Total
Inventory, December 31, 1900. (No responsibility assumed for quantities and prices.)	121 809.15	117 322.44	239 131.59
Purchases for the year 1901. (Less Returns and Allowances)			
Furniture,	198 761.13		
Parts of Furniture,	177 693 55		
Carpets,		310 267.78	
Total,			686 722.46
Labor: Setting up Furniture,	10 763.88		10 763.88
Totals,	509 027.71	427 590.22	936 617.93
Deduct: Inventory, December 31, 1901. (No responsibility assumed for quantities and prices.)			
	104 786.22	108 427.39	213 213.61
Cost of Furniture,	404 241.49		
Cost of Carpets,		319 162.83	
Cost of Furniture and Carpets,			723 404.32
Labor: Fitting Carpets,		9 431.29	9 431.29
Balance, being Gross Profits carried to Exhibit B,	139 258.14	142 833.15	282 091.29
Totals,	543 499.63	471 427.27	1 014 926.90

EXHIBIT C.

	Furniture	Carpets	Total
<i>Credits:</i>			
Sales for the year 1901,	544 687 17	473 540.72	1 018 227 89
Deduct: Returns and Allowances,	1 187 54	2 113 45	3 300.99
Net Sales for the year: Furniture, Carpets, <u>Total,</u>	543 499.63	471 427.27	1 014 926.90
\			
	543 499.63	471 427.27	1 014 926.90

BALANCE SHEET,

<i>Assets:</i>		
Cash on hand, October 31, 1902:		
Petty Cash Bank,	400.00	
Franklin National Bank,	30 769.18	
Total,		31 169 18
Bills Receivable as per Exhibit D,		636.49
Accounts Receivable:		
Sales Ledger Balances, Exhibit E,	32 259.08	
A. W. Kline,	500.00	
R. J. Jones,	1 100.40	
Total,		33 859.48
Inventory, October 31, 1902, (Not responsible for quantities and prices):		
Merchandise,	118 432.73	
Supplies,	1 104.14	
Total,		119 536.87
Unexpired Insurance, as per Exhibit F,		1 712.80
Furniture and Fixtures (as per books),		11 809.25
Total,		198 724.07

AND COMPANY.

EXHIBIT A

AS AT OCTOBER 31, 1902.

	<i>Liabilities:</i> Bills Payable as per Exhibit G, Accounts Payable as per Exhibit H,		40 000.00 11 367.64
	Total Current Liabilities, Capital Stock, Surplus Account: Balance, October 31, 1901, Profits as per Exhibit B, Balance, October 31, 1902,	 21 979.67 25 376.76	51 367.64 100 000.00 47 356.43
	Total, Part of report made December 5, 1902, <i>Clarence M. Day</i> Certified Public Accountant.		198 724.07

PROFIT AND LOSS ACCOUNT FOR THE FISCAL

<i>Debits :</i>			
General Expenses.			
Salary and Wages,	29 473.61		
Office Expense,	13 287.93		
Rent,	15 000.00		
Heat and Light,	1 184.22		
Insurance and Taxes,	2 118.69		
General Expenses,	9 307.18		
Total,		70 371.63	
Selling Expenses:			
Salesmen's Salaries,	20 777.84		
Salesmen's Expenses,	15 937.67		
Advertising,	5 111.44		
Commission and Brokerage,	3 972.15		
Premiums,	574.82		
Gratis Account,	8 234.23		
Total,		54 608.15	
Bad Debts, as per Exhibit (omitted),			2 114.80
Interest and Discount Expense:			
Interest on Notes and Accounts,	3 187.15		
Discount on Sales,	4 987.16		
Total,		8 174.31	
Balance being Net Profits for the fiscal year carried to Exhibit A,			25 376.76
Total,			160 65.65

AND COMPANY.

EXHIBIT B.

YEAR ENDING OCTOBER 31, 1902.

<p><i>Credits:</i></p> <p>Gross Profits on Trading carried from Trading Account Exhibit C,</p> <p>Recovered on Bad Accounts,</p> <p>Interest and Discount Earnings: Interest on Notes and Accounts, Discount on Purchases, Total,</p>	<p>1 147.60 10 765.81</p>	<p>147 831 09</p> <p>901.15</p> <p>11 913.41</p>
<p>Total, Part of report made December 5, 1902,</p> <p><i>Clarence M. Day</i> Certified Public Accountant.</p>		<p>160 645.65</p>

MESSRS. MARSHALL

TRADING ACCOUNT FOR THE FISCAL

<p><i>Debits:</i></p> <p>Inventory of Merchandise, October 31, 1901. (No responsibility assumed for quantities and prices)</p> <p>Purchases of Domestic Merchandise. (Less: Credits for Returns and Allowances.)</p> <p>Purchases of Foreign Merchandise. (Less: Credits for Returns and Allowances.)</p> <p>Duty and Foreign Freight,</p> <p>Total,</p> <p>Deduct: Inventory of Merchandise, October 31, 1902. (No responsibility assumed for quantities and prices.)</p>	<p>127 404.11</p> <p>217 644.26</p> <p>304 111.82</p> <p>176 801.15</p> <hr/> <p>825 961.34</p> <p>118 432.73</p>
<p>Cost of Sales,</p> <p>Balance being Gross Profits on Trading carried to Profit and Loss, Exhibit B,</p>	<p>707 528.61</p> <p>147 831.09</p>
<p>Total,</p>	<hr/> <p>855 359.70</p>

EXHIBIT C.

<i>Credits:</i>	
Sales,	857 471.10
Deduct: Returns and Allowances,	2 111.40
Net Sales for the fiscal year,	855 359.70
Total,	855 359.70

Part of report made December 5, 1902,
Clarence M. Day
Certified Public Accountant.

SCHEDULE OF BILLS RECEIVABLE, OCTOBER 31, 1902.

<p>Everett & Kuntz (makers):</p> <p>60 day note due November 5, 1907. Indorsed by R. W. Everett and A. W. Kuntz, payable at the Elmore National Bank, with interest at 6%,</p> <p>Underhill & Hoag (makers):</p> <p>90 day note due November 14, 1907. Indorsed by Amsink & Co. and G. J. Underhill, payable at the First National Bank of Utica, N. Y., with interest at 6%,</p> <p>Edward H. Hammond & Son (makers):</p> <p>Six months note due November 11, 1907. No indorsers, payable at the Oneida National Bank of Utica, N. Y. Interest added to face of note,</p>	<p>200.00</p> <p>150.00</p> <p>286.49</p>
<p>Total Bills Receivable,</p>	<p>636.49</p>

MESSRS. MARSHALL AND COMPANY.

EXHIBIT E.

SCHEDULE OF ACCOUNTS RECEIVABLE OCTOBER 31, 1902.

	Ledger Folio	NAME	Good	Questionable	Bad
	14	Rathburn & Back,	194.15		
	17	Armour & Co.,	310.50		
	19	Davis & Co.,		47.60	
	20	Walker & Co.,			40.00
	22	Davis & Wilson,	10 761.22		
	24	H. M. Pinch & Sons,		117.65	
	26	A. Wilbur & Co.,	1 891.50		
	28	Washburn Plumbing Co.,			90.10
	37	J. W. Gates & Co.,	3 471.50		
	49	Doolittle & Daws,		184.05	
	58	Gem Iron Co.,			7.17
	104	Marvel Iron Works,	1 171.60		
	143	A. W. Butler & Co.,		94.05	
	169	Wilson Iron Works,			1 100.00
	184	Marcy Store Co.,	4 722.16		
	195	Edwards Supply Co.,	2 316.80		
	199	Halsey & Howe,	2 765.00		
	205	Amity Iron Co.,	2 974.03		
		Total Bad Accounts,			1 237.27
		Total Questionable Ac-			
		counts,		443.35	443.35
		Total Good Accounts,	30 578.46		30 578.46
		Total Accounts Receiv-			
		able,			32 259.08

SCHEDULE OF INSURANCE POLICIES, SHOWING UNEXPIRED INSURANCE,
OCTOBER 31, 1902.

<i>Insurance on Stock:</i>		
Policy No. 4716835, Queen Insurance Co., for	\$7 000.00	
Expiring January 5, 1905; Term 3 years, Premium,	216.00	
Unexpired term, 2 years, 2 mos., and 5 days; Unexpired Premium,		157.00
Policy No. 3946912, Amaranth Insurance Co., for	\$40 000.00	
Expiring January 5, 1907; Term 5 years; Premium,	1 800.00	
Unexpired term, 4 years, 2 mos., and 5 days; Unexpired Premium,		1 525.00
<i>Insurance on Plate Glass:</i>		
Policy No. 1392175, Wheeling Plate Glass Insurance Co., for	\$2 000.00	
Expiring December 31, 1902; Term, 1 year, Premium,	36.00	
Unexpired term, 2 mos.; Unexpired Premium,		6 00
<i>Insurance on Furniture and Fixtures:</i>		
Policy No. 4962871, Lancaster Insurance Co., for	\$10 000.00	
Expiring June 30, 1903; Term 1 year; Premium,	37.20	
Unexpired term, 8 mos., Unexpired Premium,		24.80
Unexpired Insurance October 31, 1902,		1 712.80

SCHEDULE OF BILLS PAYABLE OCTOBER 31, 1902.

First National Bank, Accommodation 30 day note, Due November 25, 1902, at First National Bank,	10 000.00
First National Bank, Accommodation 90 day note, Due December 1, 1902, at First National Bank,	20 000.00
American Loan & Trust Co., 6 mos. note, Due January 1, 1903, at American National Bank,	10 000.00
Total Bills Payable,	40 000.00

SCHEDULE OF ACCOUNTS PAYABLE OCTOBER 31, 1902.

Ledger Folio.		
17	R. V. Davis & Co.,	1 470.60
20	A. W. Burns & Son,	5 609.87
21	G. E. Armstrong & Bro ,	94.75
23	Newmarket Co ,	1 704.87
29	Newhall Ship Chandlery Co ,	422.71
39	Newton Machine Co.,	1 875.60
170	Quaker City Iron Co.,	10.00
195	Remington & Sherman Co.,	47.50
204	Rhoades & Maloney,	131.74
Total Accounts Payable October 31, 1902.		11 367.64

EXHIBIT I.

THE WILLIAMS & HENDERSON WOODENWARE COMPANY,
PHILADELPHIA, PENNSYLVANIA,
Balance Sheet, December 31, 1901.

NOTE:—The above illustrates the
method of marking the two-page Ex-
hibits when they are bound in a Report.

THE WILLIAMS AND HENDERSON

Philadelphia,

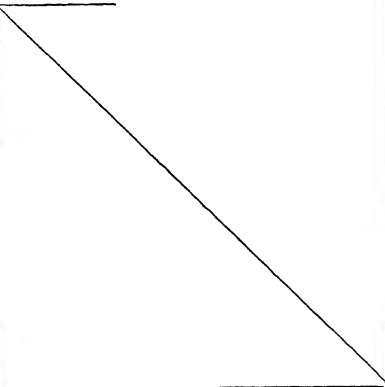
BALANCE SHEET,

<i>Assets:</i>			
Plant and Equipment:			
Real Estate and Buildings,	341 609.82		
Machinery,	139 842.15		
Tools and Movables,	129 395.01		
Office Furniture and Fixtures,	3 981.17		
Stable Equipment,	10 401.39		
Total,		625 229.54	
Cash on hand, December 31, 1901:			
Office Bank,	400.00		
Royal National Bank,	94 761.82		
Total,		95 161.82	
Accounts Receivable:			
Sales Ledger, Balance of Control			
Account,	110 401.72		
Frederick W. Vincent,	10 000.00		
Salesmen's Advances,	4 981.22		
Total as per Exhibit VII,		125 382.94	
Bills Receivable as per Exhibit VIII,			
		11 500.00	
Inventories, December 31, 1901:			
Merchandise,	207 431.87		
Material,	51 606.65		
Supplies,	4 122.39		
Total,		263 160.91	
Unexpired Insurance as per Exhibit IX.			
		411.81	
Total Assets,		1 120 847.02	

WOODENWARE COMPANY,
Pennsylvania.

EXHIBIT I.

DECEMBER 31, 1901.

<i>Liabilities:</i>		
Capital Stock (Authorized 4 000 Shares @ \$100),		400 000.00
Surplus Account, Balance as per Exhibit II,		620 626.67
Bills Payable, as per Exhibit X,	50 000 00	
Accounts Payable, as per Exhibit XI,	50 220.35	
Total Current Liabilities,		100 220.35
		
Total,		1 120 847.02

THE WILLIAMS AND HENDERSON
Philadelphia,

SURPLUS ACCOUNT FOR THE

<p><i>Debits:</i></p> <p>Dividends:</p> <p>Dividend No. 8, Feb. 12, 1901, 3% \$12 000 00</p> <p>Dividend No. 9, Aug. 10, 1901, 3% 12 000.00</p> <p>Total,</p> <p>Plant and Equipment charged off as per minutes of meeting of Board of Directors held July 15, 1901,</p> <p>Balance, being Surplus, December 31, 1901, Ex- hibit I,</p>	<p>24 000.00</p> <p>175 000.94</p> <p>620 626.67</p>
<p>Total,</p>	<p>819 627.61</p>

REPORT FORM NO. 29.

WOODENWARE COMPANY,
Pennsylvania.

EXHIBIT II.

YEAR ENDING DECEMBER 31, 1901.

<p><i>Credits:</i></p> <p>Balance of Surplus Account, December 31, 1900,</p> <p>Net Profits for the year 1901 carried from Profit and Loss Account, Exhibit III,</p> <p>Capital Stock Donated, 100 Shares, par value,</p>	<p>750 762.13</p> <p>58 865.48</p> <p>10 000.00</p>
<p>Total,</p>	<p>819 627.61</p>

THE WILLIAMS AND HENDERSON

Philadelphia,

PROFIT AND LOSS ACCOUNT FOR THE

<i>Debits:</i>		
General Expenses:		
Office Supplies and Expense,	4 743.16	
Office Salaries and Wages,	20 692.41	
Postage,	947.60	
Telegrams and Telephone,	1 128.15	
Freight and Expressage,	3 942.17	
Cartage,	4 753.21	
Sundries,	5 982.77	
Total,		42 189.47
Selling Expenses:		
Salesmen's Salaries,	10 407.81	
Salesmen's Expenses,	5 493.14	
Advertising,	5 841.77	
Commission and Brokerage,	11 223.88	
Gratis Account,	1 071.33	
Sundry Selling Expenses,	3 985.44	
Total,		38 023.37
Bad Accounts, as per Exhibit XII,		1 987.32
Balance carried down,		49 245.91
Total,		131 446.07
Interest and Discount Expense:		
Interest on Notes and Accounts,	4 722.15	
Discount on Sales,	10 777.45	
Total,		15 499.60
Balance, being Net Profits carried to Surplus Account, Exhibit II,		58 865.48
Total,		74 365.08

REPORT FORM No. 30.

WOODENWARE COMPANY,
Pennsylvania.

EXHIBIT III.

YEAR ENDING DECEMBER 31, 1901.

<p><i>Credits:</i></p> <p>Gross Profits carried from Trading Account, Exhibit V,</p> <p>Recovered on Bad Accounts,</p>		<p>131 051.36</p> <p>394.71</p>
<p>Total,</p>		<p>131 446.07</p>
<p>Balance carried from above,</p> <p>Interest and Discount Earnings: Interest on Notes and Accounts, Discount on Purchases, Total,</p>	<p>3 711.85</p> <p>21 407.32</p>	<p>49 245.91</p> <p>25 119.17</p>
<p>Total,</p>		<p>74 365.08</p>

THE WILLIAMS AND HENDERSON

Philadelphia,

TRADING ACCOUNT FOR THE

<p><i>Debits:</i></p> <p>Inventory of Merchandise, December 31, 1900. (No responsibility assumed for quantities and prices.)</p> <p>Purchases of Merchandise for the year 1901,</p> <p>Net Cost of Manufacturing carried from the Manufacturing Account, Exhibit IV,</p> <p>Total,</p> <p>Less: Inventory of Merchandise, December 31, 1901. (No responsibility assumed for quantities and prices.)</p>	<p>218 777.40</p> <p>37 601.22</p> <p>320 495.57</p> <hr/> <p>576 874.19</p> <p>207 431.87</p>
<p>Cost of Sales,</p> <p>Balance being Gross Profit on Sales carried to Profit and Loss Account, Exhibit II,</p>	<p>369 442.32</p> <p>131 051.36</p>
<p>Total,</p>	<p>500 493.68</p>

REPORT FORM NO. 31.

WOODENWARE COMPANY,
 Pennsylvania.

EXHIBIT IV.

YEAR ENDING DECEMBER 31, 1901.

<i>Credits:</i> Sales of Merchandise for the year 1901, Less: Returns and Allowances,	531 827.90 31 334.22
Net Sales of Merchandise, <hr/> <div style="border-left: 1px solid black; border-bottom: 1px solid black; height: 150px; width: 450px; margin-left: 10px;"></div>	500 493.68
Total,	500 493.68

THE WILLIAMS AND HENDERSON
Philadelphia,

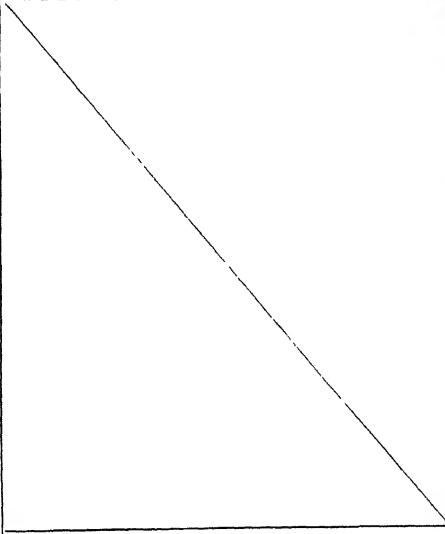
MANUFACTURING ACCOUNT FOR THE

<i>Debits:</i> Inventory of Material, December 31, 1900. (No responsibility assumed for quantities and prices) Purchases (Net) for the year 1901, Total, Deduct: Inventory of Material, December 31, 1901 (No responsibility assumed for quantities and prices.)	41 701.50 190 333.11 <hr/> 232 034.61 51 606.65	
Cost of Material Consumption, Labor, Manufacturing Expenses: Sundry Expenses and Supplies, Supervision, Salary and Expense, Heat, Light and Power, Insurance and Taxes, Accidents, Repairs and Renewals, Depreciation, Total,	 7 575.22 10 954.60 4 777.83 9 662.55 1 471.82 3 788.69 15 786.44 <hr/>	180 427.96 97 542.11 54 017.15
Total,		331 987.22

WOODENWARE COMPANY,
Pennsylvania.

EXHIBIT V.

YEAR ENDING DECEMBER 31, 1901.

<i>Credits:</i> Sales of Waste, Balance being Net Cost of Manufactur- ing carried to Trading Account, Ex- hibit IV,		11 491.65 320 495.57
		
Total,		331 987.22

THE WILLIAMS AND HENDERSON

Philadelphia,

COMPARATIVE STATEMENT OF THE ASSETS AND LIABILITIES OF THE

	1900	1901
<i>Assets:</i>		
Plant and Equipment:		
Real Estate and Buildings,	516 610.76	341 609.82
Machinery,	147 202.26	139 842.15
Tools and Movables,	136 205.38	129 395.01
Office Furniture and Fix- tures,	4 423.52	3 981.17
Stable Equipment,	11 557.10	10 401.39
Cash on hand,	87 544.38	95 161.82
Bills Receivable,	9 100.00	11 500.00
Accounts Receivable:		
Sales Ledger,	120 431.11	110 401.72
Frederick W. Vincent,		10 000.00
Salesmen's Advances,	3 987.41	4 981.22
Inventories:		
Material,	41 701.50	51 606.65
Merchandise,	218 777.40	207 431.87
Supplies,	3 764.18	4 122.39
Unexpired Insurance,	517.93	411.81
Totals,	1 301 822.93	1 120 847.02

EXHIBIT VI.

	1900	1901
<i>Liabilities:</i>		
Capital Stock,	400 000.00	400 000.00
Surplus Account,	750 762.13	620 626.67
Bills Payable,	60 000.00	50 000.00
Accounts Payable,	91 060.80	50 220.35
\		
Totals,	1 301 822.93	1 120 847.02

THE WINDHAM FOUNDRY AND MANUFACTURING COMPANY,
Report on audit for the three years ending December 31, 1904; December 30, 1905,
and December 31, 1906.

The books supporting this report are as follows:

Cash Books, Nos. 31 and 32;
General Journals, Nos. 19, 20, and 21;
Purchase Journal, Nos. 8 and 9;
Sales Books, Nos. 41 to 54;
General Ledgers, Nos. 5, 6, and 7;
Sales Ledgers, Nos. 20, 21, and 22;
Purchase Ledgers, Nos. 10, 11, and 12;
Sales Credit Book, No. 8.

TEXT OF REPORT

CLARENCE M. DAY,
CERTIFIED PUBLIC ACCOUNTANT,
NEW YORK.

New York, April 10, 1907.

Mr. EDWARD H. HENDERSON,
90 Wall Street, New York.

DEAR SIR: In accordance with your instructions, I have made an audit of the books and accounts of The Windham Foundry and Manufacturing Company of San Francisco, California, for the three years ending December 31, 1906, and, as a result of said audit, I submit herewith the following exhibits, viz:

EXHIBIT I (page 288), Balance sheet of The Windham Foundry and Manufacturing Company on December 31, 1906,

EXHIBIT II (page 290), Statement of Surplus for the three years ending December 31, 1906,

EXHIBIT III (page 292), Statements of Profit and Loss for the three years ending December 31, 1904; December 30, 1905, and December 31, 1906,

EXHIBIT IV (page 294), Statement of the Manufacturing and Trading Accounts for the year ending December 31, 1904,

EXHIBIT V (page 296), Statement of the Manufacturing and Trading Accounts for the year ending December 31, 1905,

EXHIBIT VI (page 298), Statement of the Manufacturing and Trading Accounts for the year ending December 31, 1906,

EXHIBIT VII (page 300), Comparative Statement of Assets and Liabilities of Balance Sheets for December 31, 1903; December 31, 1904; December 30, 1905; December 31, 1906, and the Trial Balance for April 1, 1907,

EXHIBIT VIII (page 302), Comparative Statement of the Profit and Loss for the three years ending December 31, 1906,

EXHIBIT IX (page 304), Condensed Trial Balance for April 1, 1907,

EXHIBIT X (page 306), Condensed Statement of the Profit and Loss Accounts (showing the results as they appear on the books of the company) for the year ending December 31, 1906,

EXHIBIT XI (page 308), Condensed Statements of the business done with T. Dixon and Company during the years 1904 and 1905, and a comparison of the sales to them and the total sales during the years 1904, 1905, and 1906, and

EXHIBIT XII (page 309), Comparative Statement for the three years ending December 31, 1906, showing percentages of the expenses and profits to the net sales.

In connection with the above, I report for your consideration the following matters:

Real Estate, \$72,500.00.

The real estate consists of lots Nos. 40, 41, 42, 43, 44, 89, 90, 91, 92, and 93 in block No. 941 of the official city map. There are 500 feet fronting on Lakeview Avenue and 200 feet fronting on Forty-first Street. The entire property is used for factory purposes and the assessed valuation, according to 1906 tax bills, was \$70,000.00.

Tools and Fixtures, \$9,159.01.

The value of tools and fixtures is taken from the ledger account for tools and fixtures. The account is composed mainly of purchases of small tools, factory and office fixtures. No provision has been made for depreciation out of the earnings during the period examined, and no renewals or replacements were charged against profit and loss. In my opinion, the value is excessive.

Patterns, \$32,966.67.

The value of patterns is taken from the ledger account for patterns. The account is composed of charges for patterns purchased and manufactured, and in addition to these charges are the following entries:

December 15, 1904, Increased valuation in Pattern Account, \$3,182.92
December 1, 1905, Increased valuation in Pattern Account, 2,329.97
November 10, 1906, Increased valuation in Pattern Account, 1,573.94

These entries do not appear to have been authorized, for I examined the minute book and found nothing relating to them in the minutes of the meetings of the Board of Directors. In my opinion, the valuation is excessive, for no provision was made for depreciation.

Register Account Machines, Patterns, etc., \$12,958.85.

This account is carried on the ledger at the valuation stated, and is composed of the following items, valued as per books:

Model Carfare Register Patents and Designs,	\$6,000.00
Special Machinery for making Registers,	4,190.00
Patterns, etc., used in making Registers,	2,312.85
Valuation increased without authority,	456.00
	<hr/>
Total (as per books),	\$12,958.85

In my opinion, the valuation on the above is excessive, because no provision was made for depreciation.

Wagons, Carts, and Mules, \$592.50.

An inventory of wagons, carts, mules, harness, and appurtenances was taken on December 31, 1906, and I was informed that the inventory was appraised. I have examined the clerical accuracy of the inventory, but assume no responsibility for the quantities and prices.

Inventories, December 31, 1906, \$52,728.84.

No responsibility is assumed for the quantities and prices of these inventories.

Profits.

An entry was made charging the profit and loss account for 1905, and crediting the profit and loss account for 1906 with \$1,500. This item was not considered when compiling the statements embodied in this report.

Sales to T. Dixon and Company.

Exhibit XI shows a comparison between the total sales and the sales made to T. Dixon and Company.

Earning Capacity.

The relation of the earnings to the capital stock for the three years under examination is entitled to serious consideration. Especially in view of these facts: the capital stock has been increased

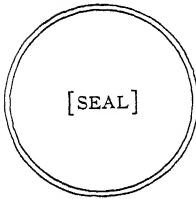
without increasing the working capital, and no provision was made for depreciation. The earnings for the year 1904 were .0072% of the capital stock; the earnings for the year 1905 were .1347% of the capital stock; the earnings for the year 1906 were .0551% of the capital stock, and the average earnings for the three years were .0655% of the average capital stock. The average earnings for three years were about .05% of the capital stock as at April 1, 1907.

These statements I certify to be correct in accordance with the books, accounts, and vouchers.

Respectfully submitted,

Clarence M. Gay

Certified Public Accountant.



THE WINDHAM FOUNDRY

San Francisco,

BALANCE SHEET,

ASSETS.		
<i>Plant and Equipment:</i>		
Real Estate,	72 500.00	
Tools and Fixtures,	9 159.01	
Patterns,	32 966.67	
Register Account, Machines, Pat-		
terns, etc.,	12 958.85	
Wagons, Carts and Mules,	592.50	
Total,		128 177.03
<i>Inventory December 31, 1906:</i>		
Pig Iron,	12 484.60	
Fuel,	1 108.00	
Merchandise manufactured and in		
process,	39 136 24	
Total,		52 728.84
<i>Cash, Balance, December 31, 1906,</i>		7 168.22
<i>Bills Receivable, as per Exhibit</i>		816.49
<i>(Omitted),</i>		
<i>Accounts Receivable:</i>		
Sundries as per Exhibit (Omitted),	23 389.01	
E. F. Wilton & Co., samples,	76.94	
J. Manton, samples,	130.88	
Metropolitan Improvement Co.,		
Pool Tax Acct.,	765.78	
Total,		24 362.61
<i>Unexpired Insurance (as per books),</i>		881.74
Total,		\$214 134.93

EXHIBIT 1.

DECEMBER 31, 1906.

LIABILITIES.		
<i>Capital Stock:</i>		
Authorized,	200 000.00	
Unissued December 31, 1906,	61 000.00	
Amount outstanding December 31, 1906,		139 000.00
<i>Mortgage on Real Estate—Interest at 5%,</i>		50 000.00
<i>Interest Accrued on Mortgage to December 31, 1906,</i>		716.00
<i>Accounts Payable:</i>		
Sundries for Material and Supplies,	5 609.12	
Sundries for Rebates (Ledger acct. 722),	1 320.72	
Stockholders Accounts as per Exhibit (Omitted),	2 463.28	
Total as per Statement Book,		9 393.12
<i>Profit and Loss, Balance as per Exhibit II,</i>		15 025.81
		\$214 134.93

THE WINDHAM FOUNDRY

San Francisco,

STATEMENT OF

For the Three Years Ending

DEBITS.	
<i>Dividends Paid During the Year 1904,</i>	3 960.00
<i>Balance, December 31, 1904, carried down,</i>	6 393.99
	\$10 353.99
<i>Dividends Paid During the Year 1905,</i>	4 230.00
<i>Balance, December 30, 1905, carried down,</i>	22 469.07
<i>(See notations in report.)</i>	
	\$26 699.07
<i>Dividends Paid During the Year 1906,</i>	16 680.00
<i>Balance, December 31, 1906,</i>	15 025.81
	\$31 705.81

AND MANUFACTURING COMPANY,
California.

EXHIBIT II.

SURPLUS

December 31, 1906.

CREDITS.	
<i>Balance, December 31, 1903,</i>	5 842.62
<i>Net Profits, carried from Profit and Loss Statement, for the Year 1904, Exhibit III,</i>	926.45
<i>Increased Valuation on Register Account,</i>	456.00
<i>Increased Valuation on Pattern Account,</i>	3 128.92
	<u>\$10 353.99</u>
<i>Balance, carried from above,</i>	6 393.99
<i>Net Profits, carried from Profit and Loss Statement, for the Year 1905, Exhibit III,</i>	17 465.11
<i>Increased Valuation on Pattern Account, ,</i>	2 329.97
<i>Dividends Waived,</i>	510.00
	<u>\$26 699.07</u>
<i>Balance, as at December 30, 1905, carried from above,</i>	22 469.07
<i>Net Profits, carried from Profit and Loss Statement, for the Year 1906, Exhibit III,</i>	7 662.80
<i>Increased Valuation on Pattern Account,</i>	1 573.94
	<u>\$31 705.81</u>

THE WINDHAM FOUNDRY

San Francisco,

STATEMENTS OF

For the three years ending, December 31, 1904,

DEBITS, 1904.	
<i>Bad Accounts charged off during the year 1904,</i>	42.23
<i>Balance, being Net Profit for the year 1904, carried to Surplus Account, Exhibit II,</i>	926.45
	\$968.68
DEBITS, 1905.	
<i>Bad Accounts Charged off during the year 1905,</i>	483.42
<i>Balance, being Net Profit for the year 1905, carried to Surplus Account, Exhibit II,</i>	17 465.11
	\$17 948.53
DEBITS, 1906.	
<i>Bad Accounts Charged off during the year 1906,</i>	287.43
<i>Balance, being Net Profit for the year 1906, carried to Surplus Account, Exhibit II,</i>	7 662.80
	\$7 950.23

AND MANUFACTURING COMPANY,
California.

EXHIBIT III.

PROFIT AND LOSS.

December 30, 1905, and December 31, 1906.

CREDITS, 1904.	
<i>Balance carried from the Manufacturing and Trading Account for the year 1904, Exhibit IV,</i>	859.87
<i>Interest Account for the year 1904,</i>	108.81
	\$968.68
CREDITS, 1905.	
<i>Balance carried from the Manufacturing and Trading Account for the year 1905, Exhibit V,</i>	17 604.07
<i>Interest Account for the year 1905,</i>	344.46
	\$17 948.53
CREDITS, 1906.	
<i>Balance carried from the Manufacturing and Trading Account for the year 1906, Exhibit VI,</i>	7 700.53
<i>Interest Account for the year 1906,</i>	249.70
	\$7 950.23

THE WINDHAM FOUNDRY

San Francisco,

STATEMENT OF THE MANUFACTURING

For the Year Ending

DEBITS.			
	Fuel	Pig Iron	Merchandise
<i>Material and Supplies:</i>			
Inventory, December 31, 1903,			
Purchases during the year 1904,	1 428.25	7 229.65	46 012.49
Total,	11 246.16	29 106.25	98 891.16
Less Inventory, December 31, 1904,	12 674.41	36 335.90	144 903.65
Consumption of:			
Merchandise,			
Pig Iron,			107 902.79
Fuel,	11 390.66	30 803 65	30 803 65
<i>Total Material and Supplies,</i>			11 390.66
<i>Labor:</i>			
Pattern Makers,		3 005 53	
Molders,		47 745.32	
Finishers		19 947.00	
Miscellaneous,		32 653.15	
Total Labor,			103 351.00
<i>Expenses:</i>			
Salary,		6 995.28	
Rent,		5 000.04	
Stable Expense,		1 022.55	
Insurance,		944.95	
Sundries,		3 884.18	
Total Expenses,			17 847.00
<i>Balance, being Gross Profits, carried to Exhibit III,</i>			859.87
			\$272 154.97

EXHIBIT IV.

December 31, 1904.

CREDITS.			
Sales for the year 1904,			281 496.66
Less Credits for:			
Returns and Allowances,		6 463.61	
Deductions, Freight, etc.,		2 878.08	
Total Credits,			9 341.69
<i>Net Sales,</i>			272 154.97
			\$272 154.97

THE WINDHAM FOUNDRY

San Francisco,

STATEMENT OF THE MANUFACTURING

For the Year Ending

DEBITS.

	Fuel	Pig Iron	Merchandise
<i>Material and Supplies:</i>			
Inventory, December 31, 1904,	1 283.75	5 532.25	37 000.86
Purchases during the year 1905,	11 937.00	30 490 79	92 282.47
Total,	13 220.75	36 023.04	129 283.33
Less Inventory, December 30, 1905,	2 014 75	8 366 30	36 342.35
Consumption of:			
Merchandise,			92 940.98
Pig Iron,		27 656.74	27 656.74
Fuel,	11 206.00		11 206.00
<i>Total Material and Supplies,</i>			131 803.72
<i>Labor:</i>			
Pattern Makers,		2 749.93	
Molders,		47 791.15	
Finishers,		20 260.93	
Miscellaneous,		32 924.58	
Total Labor,			103 726.59
<i>Expenses:</i>			
Salary,		7 339.92	
Rent,		5 000.01	
Stable Expenses,		1 142.75	
Insurance,		935.83	
Sundries,		2 992.57	
Total Expenses,			17 411.08
<i>Balance, being Gross Profits, carried to Exhibit III,</i>			17 604.07
			\$270 545.46

EXHIBIT V.

December 30, 1905.

CREDITS.

[illegible]

THE WINDHAM FOUNDRY

San Francisco,

STATEMENT OF THE MANUFACTURING

For the Year Ending

DEBITS.

	Fuel	Pig Iron	Merchandise
<i>Materials and Supplies:</i>			
Inventory December 30, 1905,	2 014.75	8 366.30	36 342.35
Purchases during the year,	9 984.58	33 883.39	65 004.66
Total,	11 999.33	42 249.69	101 347.01
Less Inventory December 31, 1906,	1 108.00	12 484.60	39 136.24
Consumption:			
Merchandise,			62 210.77
Pig Iron,		29 765.09	29 765.09
Fuel,	10 891.33		10 891.33
Total Material,			102 867.19
<i>Labor:</i>			
Pattern Makers,		2 365.42	
Molders,		44 794.33	
Finishers,		18 897.82	
Miscellaneous,		31 848.06	
Total Labor,			97 905.63
<i>Expenses:</i>			
Salary,		6 859.92	
Rent and Real Estate Ex-			
pense,		5 536.78	
Stable Expense,		941.40	
Insurance,		881.73	
Sundries,		3 221.19	
Total Expenses,			17 441.02
Balance being Gross Profits carried to Exhibit III,			7 700.53
			\$225 914.37

AND MANUFACTURING COMPANY,
California.

EXHIBIT VI.

AND TRADING ACCOUNTS.

December 31, 1906.

CREDITS.

<p><i>Sales for the year 1906,</i></p> <p><i>Less Credits for:</i></p> <p> Returns and Allowances,</p> <p> Deductions Freight, etc.,</p> <p> Register Rebates for 1906,</p> <p> Total Credits,</p> <p><i>Net Sales,</i></p>		<p>5 481.15</p> <p>2 857.74</p> <p>3 474.71</p>	<p>237 727 97</p> <p>11 813.60</p> <p>225 914 37</p> <p>\$225 914.37</p>
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THE WINDHAM FOUNDRY

San Francisco,

COMPARATIVE STATEMENT OF THE ASSETS

For December 31, 1903, December 31, 1904, December 30, 1905,

ASSETS	1903	1904	1905	1906	1907
<i>Real Estate,</i>				72 500.00	101 440.00
<i>Tools and Fixtures,</i>	8 489 93	8 489 93	8 489.93	9 159.01	9 159 01
<i>Patterns,</i>	25 933 84	29 062.76	31 392.73	32 966.67	32 966.67
<i>Register Account,</i>	12 272.85	12 958.85	12 958.85	12 958.85	12 958.85
<i>Wagons, Carts and Mules,</i>	700 00	700.00	652.50	592.50	567.50
<i>Inventory:</i>					
Pig Iron,	7 220.65	5 532.25	8 366.30	12 484.60	
Fuel,	1 428.25	1 283 75	2 014.75	1 108.00	
Merchandise,	46 012.49	37 000.86	36 342 35	39 136.24	
<i>Cash on Hand,</i>	5 100.23	4 405 48	18 232 15	7 168.22	5 710.27
<i>Bills Receivable,</i>	748.01	1 232.20	2 955 44	816.49	636.49
<i>Accounts Receivable:</i>					
Customers,	33 734.97	42 768.04	38 887.70	23 389.01	30 804.84
Sundries,	382.82	514.82	769.87	973.60	1 454.24
<i>Unexpired Insurance,</i>				881.74	
<i>Expense Accounts, 1907,</i>					107 424.50
	\$142 033.04	\$143,948.94	\$161 062.57	\$214 134.93	\$303 122.37

EXHIBIT VII.

December 31, 1906, and the Trial Balance for April 1, 1907.

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THE WINDHAM FOUNDRY

San Francisco,

COMPARATIVE STATEMENT OF THE

For the Three Years Ending

DEBITS	1904	1905	1906
<i>Material Consumption:</i>			
Merchandise,	107 902.79	92 940.98	62 210.77
Pig Iron,	30 803.65	27 656.74	29 765.09
Fuel,	11 390.66	11 206.00	10 891.33
<i>Total,</i>	150 097.10	131 803.72	102 867.19
<i>Labor:</i>			
Pattern Makers,	3 005.53	2 749.93	2 365.42
Molders,	47 745.32	47 791.15	44 794.33
Finishers,	19 947.00	20 260.93	18 897.82
Miscellaneous,	32 653.15	32 924.58	31 848.06
<i>Expenses:</i>			
Salaries,	6 995.28	7 339.92	6 859.92
Rent and Real Estate			
Expenses,	5 000.04	5 000.01	5 536.78
Stable Expense,	1 022.55	1 142.75	941.40
Insurance,	944.95	935.83	881.73
Sundries,	3 884.18	2 992.57	3 221.19
<i>Bad Accounts,</i>	42.23	483.42	287.43
	271 337.33	253 424.81	218 501.27
<i>Net Profits for Year,</i>	926.45	17 465.11	7 662.80
	\$272 263.78	\$270 889.92	\$226 164.07

REPORT FORM No. 41.

California.

EXHIBIT VIII.

PROFIT AND LOSS.

December 31, 1906.

CREDITS	1904	1905	1906
Sales for the Year,	281 496.66	278 149.68	237 727.97
Less Credits for:			
Returns and Allowances,	6 463.61	3 932.18	5 481.15
Deductions, Freight, etc.,	2 878.08	3 664.68	2 857.74
Register Rebates,		1 493.86	3 474.71
Net Sales for the Year,	272 154.97	269 058.96	225 914.37
Pool Tax,		1 486.50	
Interest Account,	108.81	344.46	249.70
/			
	\$272 263.78	\$270 889.92	\$226 164.07

THE WINDHAM FOUNDRY

San Francisco,

CONDENSED TRIAL BALANCE,

DEBITS.		
<i>Plant Equipment</i> (as per books):		
Real Estate,	101 440.00	
Tools and Fixtures,	9 159.01	
Patterns, Machinery, etc.,	32 966.67	
Register Account, Machines,		
Patterns, etc.,	12 958.85	
Wagons, Carts, Mules, etc.,	567.50	
Total,		157 092.03
<i>Inventory</i> , December 31, 1906 (as per books),		52 728 84
<i>Cash Balance</i> , April 1, 1907 (certified),		5 710.27
<i>Bills Receivable</i> , as per Exhibit (omitted),		636.49
<i>Accounts Receivable</i> :		
Customers,	30 804.84	
Samples,	207.82	
Metropolitan Impt. Co.,	1 246.42	
Total,		32 259.08
Deductions Freight, etc.,	791.65	
Labor—Molders,	11 371.85	
“ Finishers,	5 367.69	
“ Miscellaneous,	8 281.11	
“ Pattern Makers,	574.34	
Fuel Account,	2 333.71	
Iron Account,	3 138.50	
Merchandise,	7 178.30	
Special Merchandise,	9 971.26	
Expense,	2 620.16	
Stable Expense,	675.35	
Real Estate Expense,	1 502.22	
Insurance,	889.52	
Total,		54 695.66
		\$303 122.37

April 1, 1907.

CREDITS.

[illegible]

THE WINDHAM FOUNDRY

San Francisco,

CONDENSED STATEMENT OF THE

(Showing results as they

For the Year Ending

DEBITS.

<i>Register Rebates for account of 1905,</i>		1 493.86
<i>Expense Item for account of 1905,</i>		47.90
<i>Bad Accounts, as per Exhibit (omitted),</i>		287.43
<i>Transferred to Profit and Loss for the year 1906 (carried below),</i>		1 500.00
<i>Dividends:</i>		
12% to Stockholders, as per Exhibit (omitted),	15 360.00	
12% to Stockholders, as per Exhibit (omitted),	1 320.00	
Total,		16 680.00
<i>Balance of Account of Profits for 1905 (carried below),</i>		4 001.64
		\$24 010.83
<i>Balance of Profit and Loss, December 31, 1906,</i>		15 025.81
		\$15 025.81

AND MANUFACTURING COMPANY,
California.

EXHIBIT X.

PROFIT AND LOSS ACCOUNTS

appear on the books.)

December 31, 1906.

CREDITS.

<i>Balance, December 30, 1905,</i>		22 194.33
<i>Pool Tax, for account of 1905,</i>		1 486 50
<i>Dividends Waved:</i>		
J. J. Baxter,	30.00	
J. T. Shieller,	30.00	
R. N. Smith,	150.00	
Perry Belmont,	120.00	
Total,		330.00
		\$24 010.83
<i>Balance of Account of Profits for 1905 (from above),</i>		4 001.64
<i>Profits of 1905 carried from above</i>		1 500 00
<i>Interest Account for 1906,</i>		249.70
<i>Profits on Manufacturing and Trad- ing for 1906,</i>		7 700.53
<i>Increased Valuation placed on Pat- tern Account,</i>		1 573.94
		\$15 025.81

EXHIBIT XI.

THE WINDHAM FOUNDRY AND MANUFACTURING COMPANY,
San Francisco, California.

CONDENSED STATEMENTS OF THE BUSINESS DONE WITH T. DIXON & COM-
PANY DURING THE YEARS 1904 AND 1905.

Balance, December 31, 1903, Sales, etc., during 1904,		4 910.56 145 735.99
Cash, Sundry Credits, <i>Total Credits,</i>	65 677.98 70 780.85	150 646.55 136.458.83
Balance, December 31, 1904, Sales, etc., during 1905,		14 187.72 140 681.55
Cash, Sundry Credits,	71 163.00 68 375.70	154 869.27 139 538.70
<i>Balance, December 30, 1905,</i>		<i>\$15 330.57</i>
COMPARISON OF TOTAL SALES AND SALES TO T. DIXON & Co.		
	Sales	T. Dixon & Co.
1904.....	272 154.97	145 375.99
1905.....	269 058.96	140 681.55
1906.....	225 914.37	92 610.73
<i>Three Years,</i>	<i>\$767 128.30</i>	<i>\$378 668.27</i>

EXHIBIT XII.

THE WINDHAM FOUNDRY AND MANUFACTURING COMPANY,
San Francisco, California.

COMPARATIVE STATEMENT FOR THE THREE YEARS ENDING DECEMBER 31, 1906,
SHOWING THE PERCENTAGES OF THE EXPENSES AND PROFITS TO THE NET SALES.

	1904		1905		1906	
	Amount	Percent of net sales	Amount	Percent of net sales	Amount	Percent of net sales
Material,	150 097.10	.55151	131 803 72	.48987	102 867.19	.45533
Labor,	103 351.00	.37975	103 726.59	.38551	97 905.63	.43337
Expense,	17 847.00	.06557	17 411.08	.06471	17 441.02	.07720
Profits,	926.45	.00340	17 465.11	.06491	7 662.80	.03392
Bad Accounts,	42.23	.00015	483.42	.00179	287.43	.00127
Gross Sales,	281 496.66		278 149.68		237 727.97	
Allowances, etc.,	9 341.69	.03432	9 090.72	.02379	11 813.60	.05229
Net Sales,	272 154.97		269 058.96		225 914.37	
Interest,	108.81		344.46		249.70	

THE JAMES BOAK CORPORATION.

CONDENSED TRIAL BALANCE, DECEMBER 5, 1905.

Folio			
10	Bond Account,	500.00	
15	Bills Receivable,	8 910.00	
20	Revenue Account,		40 701.60
25	Office Expense,	2 140.60	
28	Salary,	10 407.15	
30	Cash,	2 000.00	
35	Stationery and Supplies,	310.15	
40	Interest and Discount,		1 105.10
45	Commission,	405 11	
50	Heat and Light,	111.10	
60	Bad Accounts,	47.00	
70	Insurance,	99.01	
80	Bills Payable,		5 000.00
91	Capital, '		50 000.00
	Totals,	24 930.12	96 806.70
	Accounts Receivable,	104 711.23	
	Accounts Payable,		32 834.65
	Totals,	129 641.35	129 641.35

REPORT FORM No. 46.

MESSRS. DEMPSEY & COTTON.

SCHEDULE OF BILLS RECEIVABLE, DECEMBER 31, 1905.

MAKER	Time	Due date	Amount
Davis & Clark,	3 mos.	Jan. 15, 1906	900.00
James Brice & Co.,	30 days	" 10, "	500.00
A. W. Voss,	60 "	" 31, "	100.00
Samuel Ross,	90 "	Feb. 11, "	875.00
Henry Morgan,	3 mos.	Mch. 15, "	1 000.00
Clark & Price,	3 "	Feb. 5, "	400.00
Samuel Desevee,	30 days	" 15, "	900.00
Frank & Engle,	60 "	" 10, "	1 000 00
R. W. Burns & Son,	30 "	Jan. 15, "	100.00
Kelley & Cole,	3 mos.	" 31, "	1 000.00
Jones & Warren,	4 "	" 31, "	400.00
Lewis & Fowler,	3 "	" 16, "	1 000.00
Washburn & Klare,	30 days	Feb. 4, "	100.00
Total,			8 275.00

CLARENCE M. DAY,
CERTIFIED PUBLIC ACCOUNTANT,
100 BROADWAY.

New York, April 5, 1902.

THE WILLIAMS & HENDERSON WOODENWARE COMPANY,
Philadelphia Pennsylvania.

Assets:

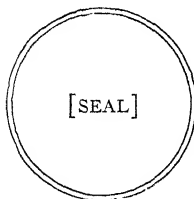
Cash on Hand and in Bank,	\$ 95 161.82	
Bills Receivable,	11 500.00	
Accounts Receivable,	125 382.94	
Inventory of Material and Merchandise,	263 160.91	
Unexpired Insurance,	411.81	\$ 495 617.48
Real Estate and Buildings,	\$341 609.82	
Machinery and Equipment,	283 619.72	\$ 625 229.54
Total Assets,		\$1 120 847.02

Liabilities:

Accounts Payable,	\$ 50 220.35	
Bills Payable,	50 000.00	\$ 100 220.35
Surplus,	\$620 626.67	
Capital Stock,	400 000.00	\$1 020 626.67
Total Liabilities,		\$1 120 847.02

I hereby certify that the foregoing statement, in my opinion, correctly sets forth the financial condition of The Williams & Henderson Woodenware Company as at the close of business on December 31, 1901.

Clarence M. Day
Certified Public Accountant.



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